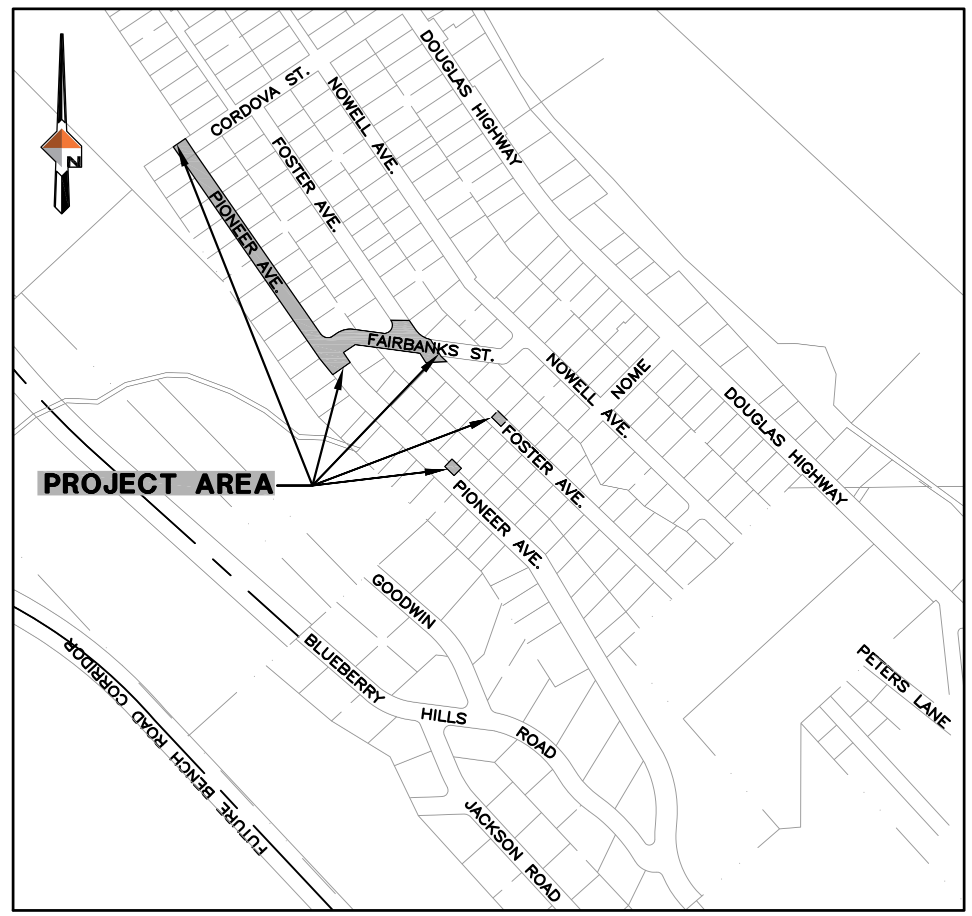
PIONEER AVENUE RECONSTRUCTION, PHASE I

CONTRACT NO. E11-204

INDEX



VICINITY MAP
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APPROVED BY		SHEET NO.
DIRECTOR OF PUBLIC WORKS		1 of 25
SIGNATURE	DATE	
CHIEF CIP ENGINEER		
SIGNATURE	DATE	

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LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
BURIED ELECTRICAL UTILITIES			
CATCH BASIN			CB-1
CONTROL POINT			
CURB & GUTTER			
CUT LIMITS			
FIRE HYDRANT			
HOUSE NO	2204		
MAILBOX	MB		MB
PROJECT CONTROL LINE			
PROPERTY LINE			
POWER POLE			
SANITARY SEWER PIPE			P-1
SANITARY SEWER MANHOLE			MH-1
SIGN			SEE SIGN ASSEMBLY TABLE
STORM DRAIN PIPE			S-1
STORM DRAIN MANHOLE			CB-1
SURVEY MONUMENT–REBAR W/ PLASTIC CAP			
TREE CONIFER			
TREE DECIDUOUS			
WATER LINE PIPE			
WATER METER BOX	M	M	
WATER VALVE BOX			

ABBREVIATIONS

AC	ASPHALT PAVING
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYENE PIPE
CONC	CONCRETE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIA	DIAMETER
FG	FINISHED GRADE
GV	GATE VALVE
INV	INVERT
LG	LIP OF GUTTER
LT	LEFT
MH	MANHOLE
MN	MAGNETIC NAIL
MTE	MATCH TO EXISTING
NO	NUMBER
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE PIPE
RT	RIGHT
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TBG	TOP BACK OF GUTTER
TP	TOP OF PAVEMENT
TSW	TOP OF SIDEWALK

ABBREVIATIONS TO BE USED WITHOUT PERIODS

GENERAL NOTES

1. BEGIN SUBCUT AT 24 INCHES FROM PAVEMENT SAWCUT LINE AT STREET CONNECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, OR DIRECTED BY THE ENGINEER. REMOVE AND REPLACE BASE COURSE WITH 6 INCHES OF 2" MINUS SHOT ROCK/BASE COURSE TO 12 INCHES FROM PAVEMENT SAWCUT LINE. SAWCUT AS NECESSARY ALONG ALL STREET, DRIVEWAY AND SIDEWALK APPROACHES TO PROVIDE A NEAT MATCH LINE.
2. LARGE BOULDERS, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING AND ROADWAY EXCAVATION OPERATIONS. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
3. CONTRACTOR SHALL ASSURE GARBAGE PICKUP AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENCES AFFECTED BY THIS PROJECT.
4. CBJ ENGINEERING STANDARD DETAILS BOOK DATED APRIL, 2000 IS MADE PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
5. ALL EXISTING WATER, SANITARY SEWER AND STORM DRAIN PIPES (6 INCH DIAMETER AND LARGER), AND APPURTENANCES (TO BE ABANDONED) THAT ARE WITHIN THE STREET AND SIDEWALK LIMITS, SHALL BE REMOVED AND DISPOSED OF, OR FILLED WITH FLOWABLE MIXTURE, UNLESS OTHERWISE NOTED.
6. EXISTING PIPE LOCATIONS ARE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATED. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. DEPTH OF SOME OF THE EXISTING PIPES SHOWN ON THE ELEVATIONS ARE ASSUMED. DIAL BEFORE YOU DIG 586-1333.
7. GRADING AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. LOCATION OF PROPOSED WATER, SANITARY SEWER AND STORM DRAINAGE FACILITIES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. PROVIDE KNOCKOUTS IN CATCH BASINS FOR ALL PIPES SHOWN ON THE PLANS.
8. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES AT 780-6808 OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" TO CBJ WATER UTILITIES SUPERINTENDENT FOR APPROVAL AT LEAST 48 HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
9. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT BOUNDARY SURVEY. EXISTING RECORD PLATS DO NOT CLOSE WITH EACH OTHER IN SOME CASES. THE PROPERTY LINES SHOWN ON THESE PLANS ARE A BEST FIT APPROXIMATION OF CLOSURE.
10. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING WATER AND SEWER PIPES, INCLUDING ALL SERVICES ALONG THE STORM DRAIN AND WATER PIPE ALIGNMENTS, TO DETERMINE PIPE INSULATION LOCATIONS, AND TO ENSURE DAMAGE DOES NOT OCCUR TO THE SERVICE PIPES.
11. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
12. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS, CONCRETE NAILS, CHISELED X's) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER SURFACING IS REPLACED. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
13. ALL ASPHALT PAVEMENT TO BE REMOVED AND DISPOSED OF SHALL BE DELIVERED TO A STOCKPILE AREA AT THE LEMON CREEK CITY PIT TO BE DESIGNATED BY THE ENGINEER. CONTACT THE ENGINEER FOR THE EXACT LOCATION OF THE STOCKPILE.
14. AEL&P, ACS, AND GCI MAY CONDUCT WORK WITHIN THE PROJECT LIMITS TO RELOCATE UTILITIES AND UPGRADE THEIR RESPECTIVE SYSTEMS. THE CONTRACTOR SHALL COORDINATE ITS ACTIVITIES WITH EACH UTILITY COMPANY AND PROVIDE ACCESS AS NECESSARY FOR UTILITY COMPANIES TO CONDUCT THEIR WORK.
15. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN (NOT ALL ARE LABELED) ON DRAWINGS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTIONS TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS
16. THE CONTRACTOR SHALL RESTRICT ITS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ASSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES. REFER TO SECTION 01530, ARTICLE 1.7 OF THE STANDARD SPECIFICATIONS FOR FURTHER REQUIREMENTS.
17. THE PLAN DRAWINGS DO NOT SHOW ALL TREES, BUSHES AND LANDSCAPING THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, BUSHES OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
18. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY, WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
19. THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED. SEE THE DRAWINGS AND SECTION 02502 – STORM SEWER MANHOLES, INLETS AND CATCH BASINS FOR CATCH BASIN SUPPORT REQUIREMENTS. CATCH BASIN FRAME AND GRATES SHALL BE SET AT 6-3/4" BELOW TOP BACK OF CURB ELEVATION, WITH 3' LONG CONCRETE GUTTER TRANSITIONS TO BOTH SIDES OF GRATE.
20. TEMPORARY STAIRS OR RAMPS SHALL BE PROVIDED AS REQUIRED FOR RESIDENT ACCESS TO THEIR WALKWAYS DURING THE CONSTRUCTION PERIOD.
21. THE CONTRACTOR SHALL ARRANGE FOR ELECTRICAL UTILITY LOCATES PRIOR TO ANY EXCAVATION. UNDERGROUND ELECTRICAL UTILITIES, IF SHOWN ON THE DRAWINGS, INDICATE THEIR EXISTENCE ONLY, AND MAY NOT SHOW THE ACTUAL LOCATION. OTHER BURIED ELECTRICAL UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THE DRAWINGS. DIAL BEFORE YOU DIG AT 586-1333.
22. WATER PIPES WILL BE REQUIRED TO BE INSTALLED WITH MORE THAN 60 INCHES OF COVER IN AREAS WHERE STORM DRAINAGE PIPES ARE CLOSE TO OR BELOW A DEPTH OF 60 INCHES TO INVERT. DEPTHS OF ALL STORM DRAINAGE PIPES SHALL BE DETERMINED PRIOR TO INSTALLING WATER PIPES TO ENSURE CONFLICTS BETWEEN THESE PIPES DO NOT OCCUR. A MINIMUM CLEARANCE OF 8" SHALL BE OBTAINED BETWEEN WATER AND OTHER PIPES.
23. THE CONTRACTOR SHALL PROVIDE TOP OF WATER PIPE ELEVATIONS TO THE ENGINEER AT A MAXIMUM SPACING OF 50 FEET AND AT ALL GRADE BREAKS PRIOR TO BACKFILLING OVER THE PIPE. IF THE PIPE IS BACKFILLED PRIOR TO PROVIDING THESE TOP OF PIPE ELEVATIONS, THE PIPE SHALL BE EXPOSED AND THE TOP OF PIPE SURVEYED BY THE CONTRACTOR.

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JOB No. J70388 | DRAWN BY: STAFF | DESIGNED BY: P. HILDRE | CHECKED BY: STAFF | DATE: MARCH 2011

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

LEGEND, ABREVIATIONS, AND GENERAL NOTES

SIGN ASSEMBLY TABLE

DIXON STREET

NO.	LOCATION	MUTCD DESIGNATION OR DESCRIPTION	LEGEND AND COMMENTS
1	"P" 10+48, RT	R7-1	"NO PARKING ANYTIME" W/ DOUBLE ARROW (SEE NOTE D)(12"X18")
2	"P" 11+36, LT	R7-1	"NO PARKING HERE TO CORNER" W/ ARROW TO LEFT (12"X18")
3	"P" 11+97, RT	R2-1	"SPEED LIMIT 20" (24"X30")
4	"P" 13+79, RT	R7-1	"NO PARKING ANY TIME" W/ DOUBLE ARROW (12"X18")
5	"P" 16+91, RT	R7-1	"NO PARKING ANY TIME" W/ DOUBLE ARROW (12"X18")
6	"P" 18+15, LT	R1-1	"STOP" (30"X30") (SEE NOTE D)

A) ALL SIGNS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY & BOROUGH STANDARD DETAIL NO. 127.
B) ALL SIGNS TO BE LOCATED AS DIRECTED BY THE ENGINEER.
C) ALL STOP SIGNS SHALL BE HIGH INTENSITY.
D) SALVAGE AND REUSE STREET NAME PANELS
E) SALVAGE ALL SIGN PANELS AND DELIVER TO CBJ STREETS MAINTENANCE SHOP. DISPOSE OF ALL EXISTING POSTS AND POST SOCKETS.
F) REPLACE ALL LOWER BRACKETS FOR STREET IDENTIFICATION PANELS. BRACKET BETWEEN PANELS MAY BE REUSED, IF IN GOOD CONDITION.
G) ALL POSTS SHALL BE "TELSPAR", OR APPROVED EQUAL.
H) POSTS SHALL BE PRE-PUNCHED WITH ALL KNOCKOUTS REMOVED.
I) REPLACE ALL POST ASSEMBLY MATERIALS.

CATCH BASIN FRAME AND GRATE TABLE

CATCH BASIN No.	EAST JORDAN IRON WORKS, OLYMPIC FOUNDRY CO., CBJ STANDARD No., OR APPROVED EQUAL
	PIONEER AVENUE
CB-1	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-2	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-3	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-4	OF SM18
CB-5	OF MH 34SC
CB-6	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-7	OF SM18
CB-8	OF MH 34SC
CB-9	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-10	OF SM18
CB-11	OF MH 34SC
CB-12	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-13	EJIW 7701 T2 HOOD W/ 7700 M2 GRATE
CB-14	OF MH 34SC
CB-15	OF MH 34SC

CATCH BASIN TOP SLAB OPENINGS SHALL BE DIMENSIONED TO FIT THE FRAME DIMENSIONS. ALL COVERS SHALL BE HEAVY DUTY CONSTRUCTION AND BICYCLE SAFE. ALL FRAMES AND GRATES SHALL BE DUCTILE IRON.

LOCAL FLOW LINE DEPRESSION AT CATCH BASIN SHALL BE ¾ INCH, WITH 36" TRANSITIONS TO EACH SIDE OF FRAME, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

NOTES FOR TRAFFIC CONTROL:

- ALL TRAFFIC BE CONTROLLED PER THE REQUIREMENTS OF THE ALASKA TRAFFIC MANUAL (U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE ALASKA SUPPLEMENT).
- ALL DETOURS SHALL BE AS APPROVED BY THE ENGINEER.
- ROAD CLOSURES WILL BE PERMITTED ONLY AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR WILL NOT BE PERMITTED TO OBSTRUCT VEHICULAR TRAFFIC BETWEEN THE HOURS OF 4:30pm AND 8:00am SEVEN DAYS A WEEK.
- PROVIDE ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES.
- VEHICULAR ACCESS SHALL BE AVAILABLE AT ALL TIMES FOR TRAFFIC TO TRAVEL TO AND FROM PIONEER AVENUE SOUTH OF FAIRBANKS STREET, EITHER BY ACCESSING FAIRBANKS STREET TO FOSTER AVENUE OR ACCESSING ALONG PIONEER AVENUE TO CORDOVA STREET. THIS CONTINUOUS ACCESS REQUIREMENT WILL NOT BE WAIVED DURING PAVING OPERATIONS OR FOR ANY OTHER REASON.
- A TEMPORARY SIGN (MINIMUM 18"X24") SHALL BE PLACED ON CORDOVA STREET JUST BELOW THE FOSTER AVENUE (SOUTH) INTERSECTION WITH "PIONEER AVE CLOSED AHEAD" IN 3" LETTERS, AT ALL TIMES PIONEER AVENUE IS CLOSED DURING THE WORK SHIFT.
- PIONEER AVENUE SHALL BE OPENED TO TWO LANE TRAFFIC BETWEEN 5:00 PM AND 8:00 AM, EVERY DAY.

NOTES FOR PAINTED TRAFFIC MARKINGS:

- PAINTED DOUBLE YELLOW ALONG GRADE BREAK LINE FROM LOCATION ON CORDOVA STREET WHERE EXISTING STRIPING IS UNDAMAGED TO STATION "P" 10+80, AN APPROXIMATE LENGTH OF 60 FEET.
- WHITE PAINTED CROSS WALK CENTERED ON THE ACCESS RAMPS AT STATION "P" 18+69, WITH TWO 18" WIDE BARS SPACED 8 FEET APART.

PROJECT PHASING REQUIREMENTS

WORK DESCRIPTION	COMPLETION DATE
PIONEER AVENUE	NO WORK SHALL OCCUR ON FAIRBANKS STREET WHILE WORK IS PROCEEDING ALONG PIONEER AVENUE.
FAIRBANKS STREET	NO WORK SHALL OCCUR ON PIONEER AVENUE WHILE WORK IS PROCEEDING ON FAIRBANKS STREET.
FINAL COMPLETION OF ALL WORK	SEPTEMBER 15, 2011

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ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I
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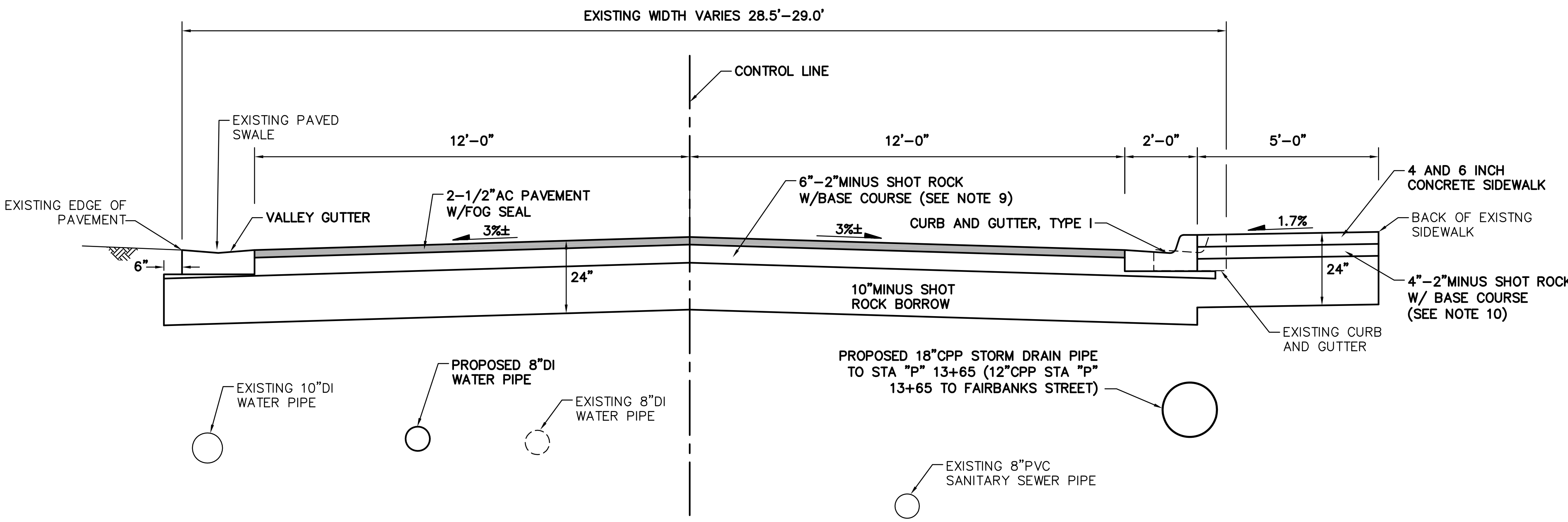
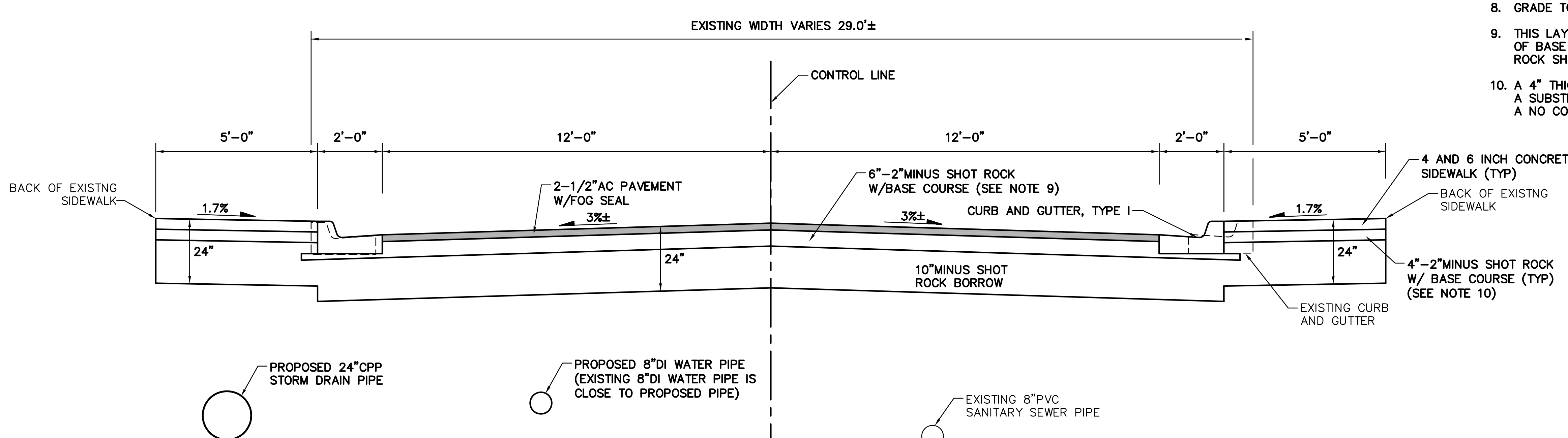
SIGN ASSEMBLY TABLE, CATCH BASIN FRAME AND GRATE TABLE, PROJECT PHASING PLAN, TRAFFIC CONTROL NOTES AND PAINTED TRAFFIC MARKINGS



PIONEER AVENUE
CORDOVA STREET TO FAIRBANKS STREET TYPICAL SECTION
NTS



PIONEER AVENUE
FAIRBANKS STREET TO END OF PROJECT TYPICAL SECTION
NTS

NOTES:

1. SUBCUT DEPTH IS SUBJECT TO REVISION BY THE ENGINEER, DEPENDENT ON EXISTING SUBSURFACE CONDITIONS. IF ORGANIC OR OTHER UNSUITABLE MATERIALS ARE FOUND TO EXIST AT OR NEAR THE PLANNED SUBCUT LEVEL, ADDITIONAL EXCAVATION AND BACKFILL MAY BE REQUIRED. ALL MATERIALS, INCLUDING BOULDERS, SHALL BE REMOVED TO THE DEPTHS REQUIRED FOR THE ROADWAY SUBCUT AND FOR ALL PIPING.
2. IF EXISTING SOILS WITHIN THE PLANNED SUBCUT LAYER ARE FOUND TO BE SUITABLE, AS DETERMINED BY THE ENGINEER, THE DEPTH OF EXCAVATION AND BACKFILL MAY BE DECREASED.
3. DRIVEWAYS DISTURBED DURING CONSTRUCTION SHALL BE RECONSTRUCTED TO EQUAL OR BETTER CONDITION WITH SUBGRADE REPLACED IN LAYERS TO MATCH THOSE REMOVED, EXCEPT:
   A. CONCRETE DRIVEWAYS SHALL BE SUBCUT TO 24 INCHES BELOW FINISH GRADE AND REPLACED WITH 14 INCHES OF SHOT ROCK BORROW, 4 INCHES OF 2"MINUS SHOT ROCK W/ BASE COURSE AND 6 INCHES OF CONCRETE.
   B. GRAVEL DRIVEWAYS SHALL BE GRADED TO MATCH THE NEW SIDEWALK, OR VALLEY GUTTER, WITH A SMOOTH TRANSITION TO MATCH TO THE EXISTING DRIVEWAY SURFACE. BASE COURSE, GRADING D-1 SHALL BE USED AS REQUIRED FOR GRADING PURPOSES.
   C. ORGANICS, ROOTS, WOOD OR OTHER DELETERIOUS MATERIALS ENCOUNTERED IN THE DRIVEWAYS DURING EXCAVATION OPERATIONS SHALL NOT BE REPLACED, BUT SHALL BE DISPOSED OF OFF-SITE. BACKFILL VOIDS BELOW THE REQUIRED SUBCUT LAYER WITH USABLE MATERIAL FROM EXCAVATION.
4. ACCESS RAMPS SHALL CONFORM TO CBJ STANDARD 105 REGARDING TRANSITIONS FOR THE DEPRESSED SIDEWALK AND THE SIDEWALK SHALL BE DEPRESSED TO PROVIDE A MAXIMUM 2% CROSSSLOPE. CONCRETE ACCESS RAMPS SHALL BE SUBCUT TO 24 INCHES BELOW FINISH GRADE AND REPLACED WITH 14 INCHES OF SHOT ROCK BORROW, 4 INCHES OF 2"MINUS SHOT ROCK BORROW W/ BASE COURSE AND 6 INCHES OF CONCRETE, WITH DETECTABLE TILES INSTALLED AS SHOWN ON THE DRAWINGS.
5. DRIVEWAY RAMPS SHALL CONFORM TO CBJ STANDARD 105 REGARDING TRANSITIONS FOR THE DEPRESSED SIDEWALK, EXCEPT SHALL BE CONSTRUCTED WITH GRADE BREAKS WHERE SHOWN ON THE DRAWINGS.
6. ACTUAL TOP OF PAVEMENT SHALL BE 1/4 INCH – 3/8 INCH ABOVE TOP EDGE OF CONCRETE GUTTER AND TOP OF PAVEMENT ELEVATIONS AS GIVEN ON THE PLAN GRADE SHEETS. TOP OF 2"MINUS SHOT ROCK W/ BASE COURSE IS 2-1/4" BELOW LIP OF GUTTER.
7. TOPSOIL DEPTH SHALL BE 3 INCHES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
8. GRADE TOP OF CURB AT 2%.
9. THIS LAYER SHALL BE 4" TO 5" OF 2" MINUS SHOT ROCK WITH 1" TO 2" TOP LAYER OF BASE COURSE, GRADING D-1 FOR A TOTAL THICKNESS OF 6". THE 2" MINUS SHOT ROCK SHALL BE WELL COMPACTED PRIOR TO PLACING BASE COURSE, GRADING D-1.
10. A 4" THICK LAYER OF BASE COURSE, GRADING D-1 MAY BE USED UNDER SIDEWALK AS A SUBSTITUTE FOR 2" MINUS SHOT ROCK W/ BASE COURSE. THIS WILL BE CONSIDERED A NO COST CHANGE.

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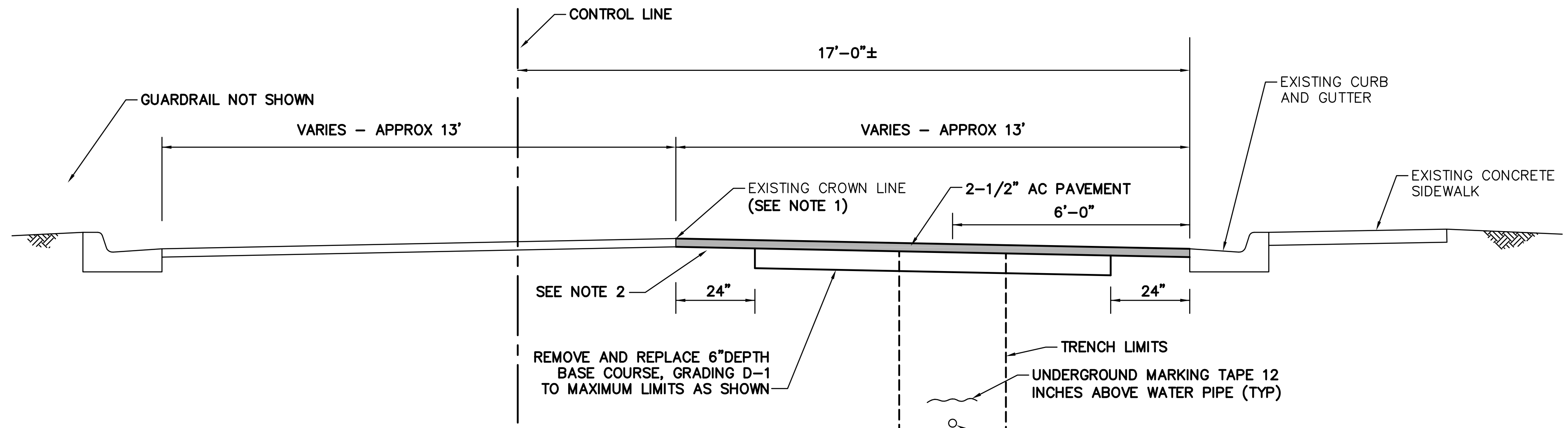
PIONEER AVENUE TYPICAL SECTIONS



NOTES:

1. INITIAL SAWCUT SHALL NOT BE WITHIN 12" OF EXISTING JOINT. FINAL SAWCUT SHALL BE A UNIFORM LINE NO MORE THAN 1" TO LEFT OF EXISTING JOINT.
2. EXISTING AC PAVEMENT IS ASSUMED TO BE 2" THICK. GRADE AREAS TO WITHIN 6" OF EDGE OF CONCRETE GUTTER AND CROWN LINE FOR 2-1/2" THICK AC PAVEMENT.

FAIRBANKS STREET TYPICAL SECTION

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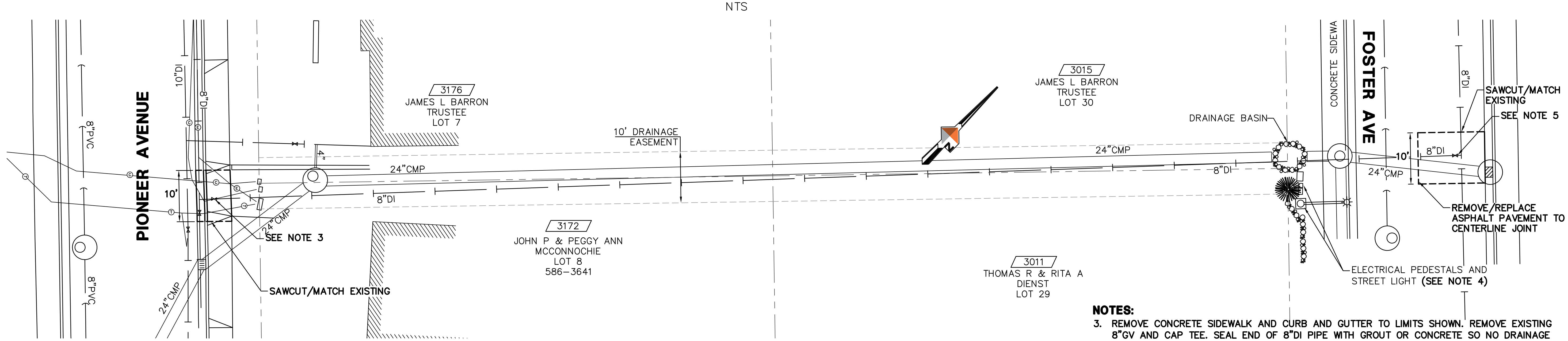

NOTES:

3. REMOVE CONCRETE SIDEWALK AND CURB AND GUTTER TO LIMITS SHOWN. REMOVE EXISTING 8"GV AND CAP TEE. SEAL END OF 8"DI PIPE WITH GROUT OR CONCRETE SO NO DRAINAGE CAN ENTER PIPE. REPLACE SIDEWALK AND CURB AND GUTTER AND RESTORE AREA TO EQUAL OR BETTER CONDITION.
4. ELECTRICAL CONDUCTORS NOT SHOWN. CONTRACTOR SHALL HAVE ELECTRICAL LOCATES DONE PRIOR TO BEGINNING EXCAVATION WORK AT THIS SITE.
5. REMOVE ASPHALT PAVEMENT TO LIMITS SHOWN. REMOVE EXISTING 8"GV AND CAP TEE. CAP END OF 8"DI PIPE WITH 1" DRAIN HOLE IN END CAP AT FLOW LINE. PLACE ONE-QUARTER CY 2"MINUS SHOT ROCK AT PIPE END CAP. REPLACE BASE COURSE, GRADING D-1 TO 6 INCHES THICK AND ASPHALT PAVEMENT TO 2-1/2" THICK.

WATER PIPE DISCONNECTIONS

NTS

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DEPARTMENT OF ENGINEERING

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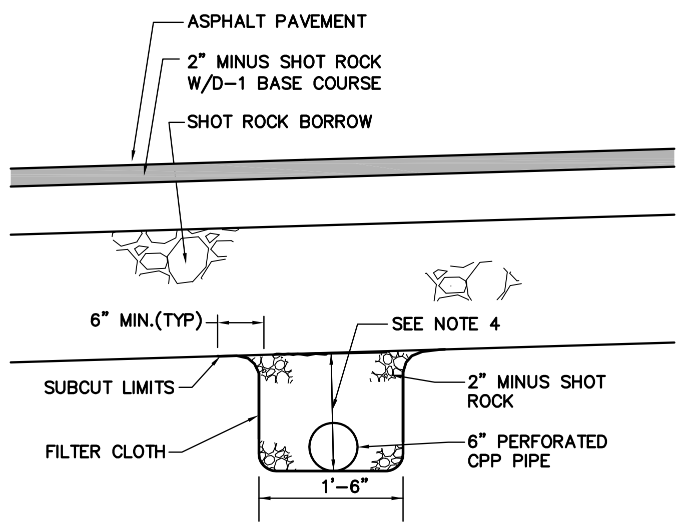
FAIRBANKS STREET TYPICAL SECTION AND WATER PIPE DISCONNECTIONS



NOTES

1. 6-INCH UNDERDRAIN IS A CONTINGENCY ITEM, EXCEPT THE 6-INCH UNDERDRAIN SYSTEM AT FOSTER AVENUE WILL BE INSTALLED AS SHOWN. 6-INCH UNDERDRAINS MAY BE INSTALLED ACROSS PIONEER AVENUE AT VARIOUS LOCATIONS AS DETERMINED BY THE ENGINEER.
2. OUTFALL CONNECTIONS WILL BE EITHER INTO CATCH BASINS, OR CPP SADDLE TEES.
3. UPPER END OF PIPES SHALL BE CAPPED AND THE FILTER CLOTH FOLDED AND OVERLAPPED TO SEAL END OF DRAINAGE ROCK SECTION.
4. VARIES, SEE PLAN DRAWINGS.

6-INCH UNDERDRAIN

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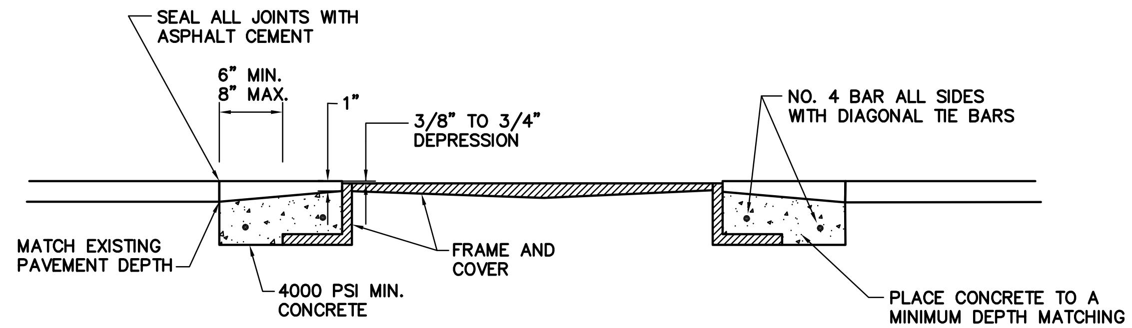


CONCRETE SHALL CURE FOR 48 HOURS MINIMUM BEFORE PLACING PAVEMENT OVERLAY

*THIS TRANSITION SLAB WILL NOT BE REQUIRED IF DEPRESSION TO COVER LUGS OR FRAME, WHICHEVER IS HIGHER, MEETS THE REQUIRED DEPRESSION RANGE FOLLOWING THE FINISH PAVING OPERATIONS

TRANSITION SLAB W/ ASPHALT PAVEMENT OVERLAY

NTS

NOTES:

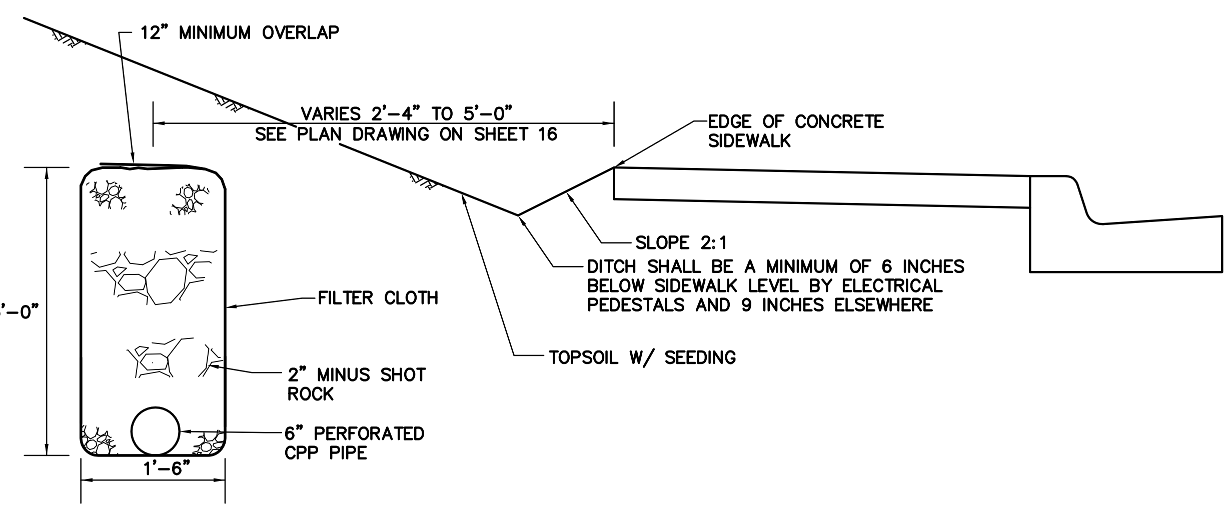
A. ALL VOIDS BETWEEN THE TOP OF THE CATCH BASIN AND THE FRAME (EXCEPT A 1/4 INCH MAXIMUM THICKNESS GROUT BED MAY BE APPLIED BETWEEN PRECAST CONCRETE RISERS) SHALL BE FILLED WITH CONCRETE MEETING THE REQUIREMENTS OF SECTION 03302 – CONCRETE STRUCTURES. NO BRICKS, WOOD, STONES, ADJUSTING RINGS, OR OTHER GRADE ADJUSTMENT DEVICES SHALL BE USED.

B. CBJ STANDARD DETAIL 303– STORM DRAIN MANHOLES TYPES I AND II IS REVISED AS FOLLOWS:

– DELETE NOTE I
– DELETE THE DRAWING NOTES THAT READ: "IF MANHOLE IS IN PAVED ROADWAY, INSTALL CONCRETE COLLAR PER STANDARD 126", "FRAME AND GRATE SHALL CONFORM TO STD 206", AND "ADJUSTING RINGS SEE NOTE I", AND REPLACE WITH "FRAME AND COVER SHALL CONFORM WITH STANDARD 306" AND "CONCRETE SHALL BE USED FOR ADJUSTMENT OF FRAME TO FINISH GRADE".

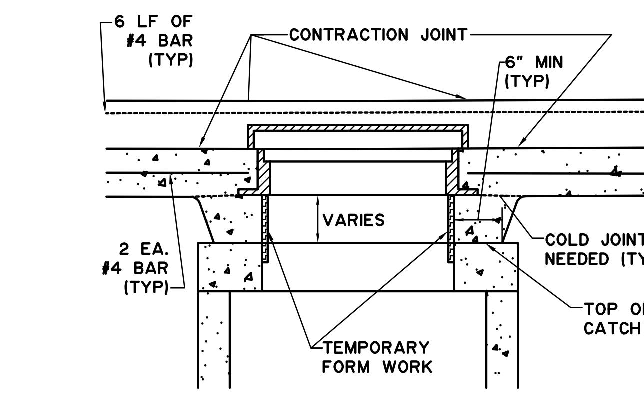
C. TEMPORARY FORM WORK SHALL BE CONSTRUCTED TO PROVIDE A SMOOTH INSIDE EXPOSED SURFACE. AFTER REMOVAL OF FORM WORK, THE EXPOSED SURFACES SHALL BE FINISHED AS REQUIRED TO PROVIDE A SURFACE FREE OF VOIDS AND PROJECTIONS.

D. THIS DETAIL SHALL ALSO APPLY TO TYPE I MANHOLES. THE CONCRETE FRAME SUPPORT MAY BE CONSTRUCTED WITH A RECTANGULAR SHAPE TO MATCH THE FRAME (OVER A CIRCULAR MANHOLE OPENING), BUT MUST BE CONSTRUCTED WITH A CIRCULAR INSIDE SHAPE FOR INSTALLATION OF A CIRCULAR FRAME. GROUT SHALL BE USED AS NECESSARY TO SLOPE INSIDE LEVEL AREAS OF TOP SLAB FOR DRAINAGE.



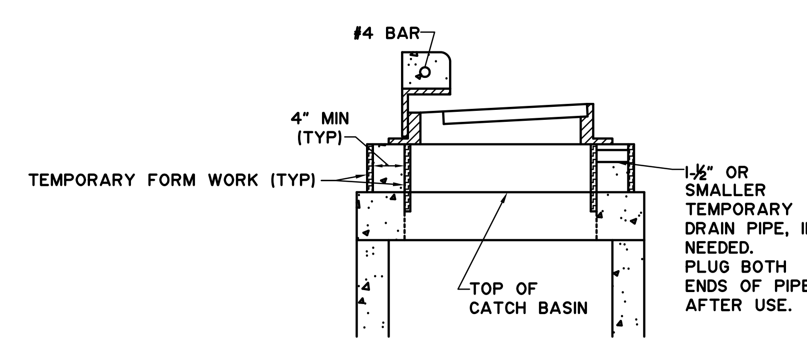
6-INCH UNDERDRAIN FOR FOSTER AVENUE

NTS



FRONT VIEW

NTS



SIDE VIEW

NTS

CATCH BASIN FRAME SUPPORT DETAIL

NTS

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JOB No. J70388	DRAWN BY: STAFF	DESIGNED BY: P. HILDRE	CHECKED BY: STAFF	DATE: MARCH 2011

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE
RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

DETAILS

SHEET NO.

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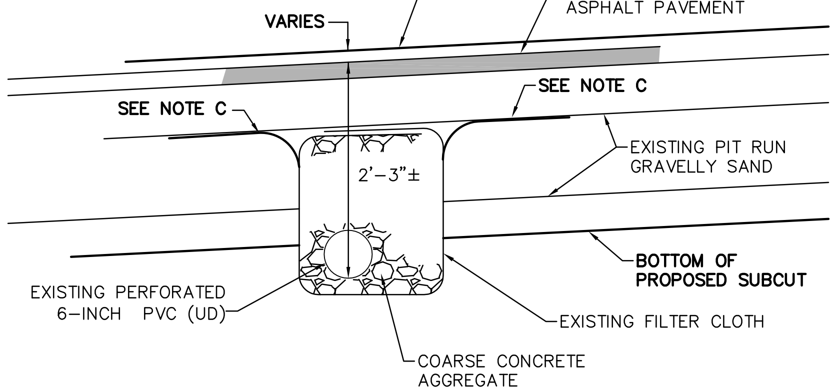


NOTES:

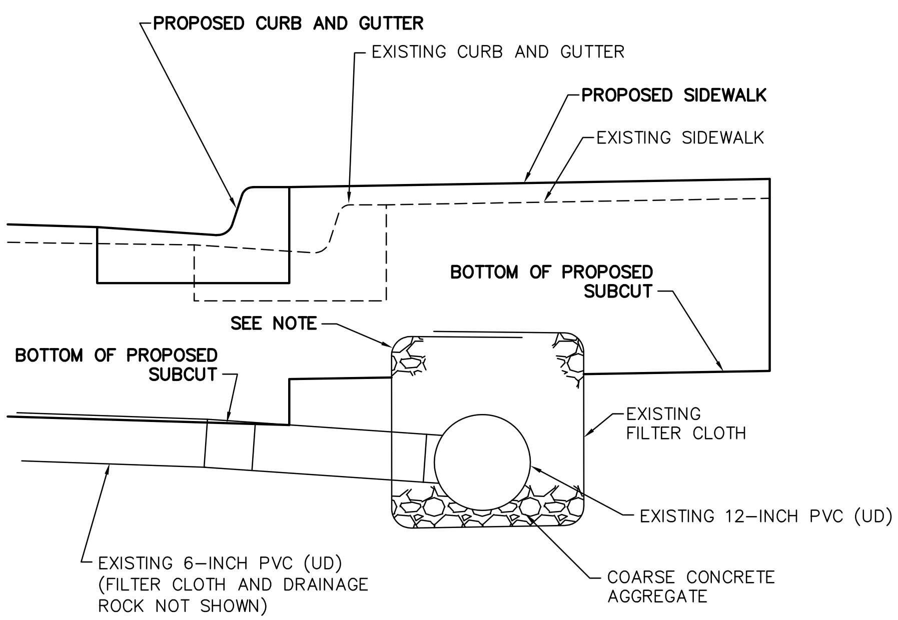
A. EXISTING 6-INCH PVC (UD), INCLUDING FILTER CLOTH AND DRAINAGE ROCK IS TO REMAIN IN SERVICE.

B. CAREFULLY PLACE SHOT ROCK BORROW AGAINST SIDES OF EXISTING FILTER CLOTH.

C. PULL OPEN FILTER CLOTH AT TOP PRIOR TO PLACING 2-INCH MINUS SHOT ROCK BASE COURSE SO NEW BASE COURSE WILL DRAIN INTO COARSE CONCRETE AGGREGATE

EXISTING 6-INCH PVC (UD)

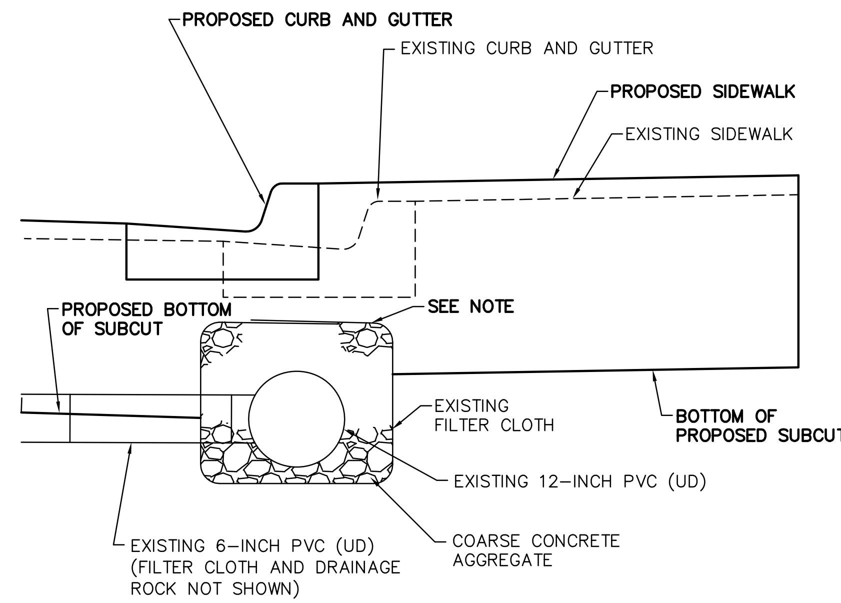
NTS



NOTE: EXISTING 12-INCH PVC (UD), INCLUDING FILTER CLOTH AND DRAINAGE ROCK IS TO REMAIN IN SERVICE. CAREFULLY PLACE SHOT ROCK BORROW AROUND AND OVER FILTER CLOTH.

STA "P" 13+67 TO STA "P" 15+35
EXISTING 12-INCH PVC (UD)

NTS



NOTE: EXISTING 12-INCH PVC (UD), INCLUDING FILTER CLOTH AND DRAINAGE ROCK IS TO REMAIN IN SERVICE. CAREFULLY PLACE SHOT ROCK BORROW AROUND AND OVER FILTER CLOTH.

STA "P" 15+35 TO STA "P" 18+52
EXISTING 12-INCH PVC (UD)

NTS

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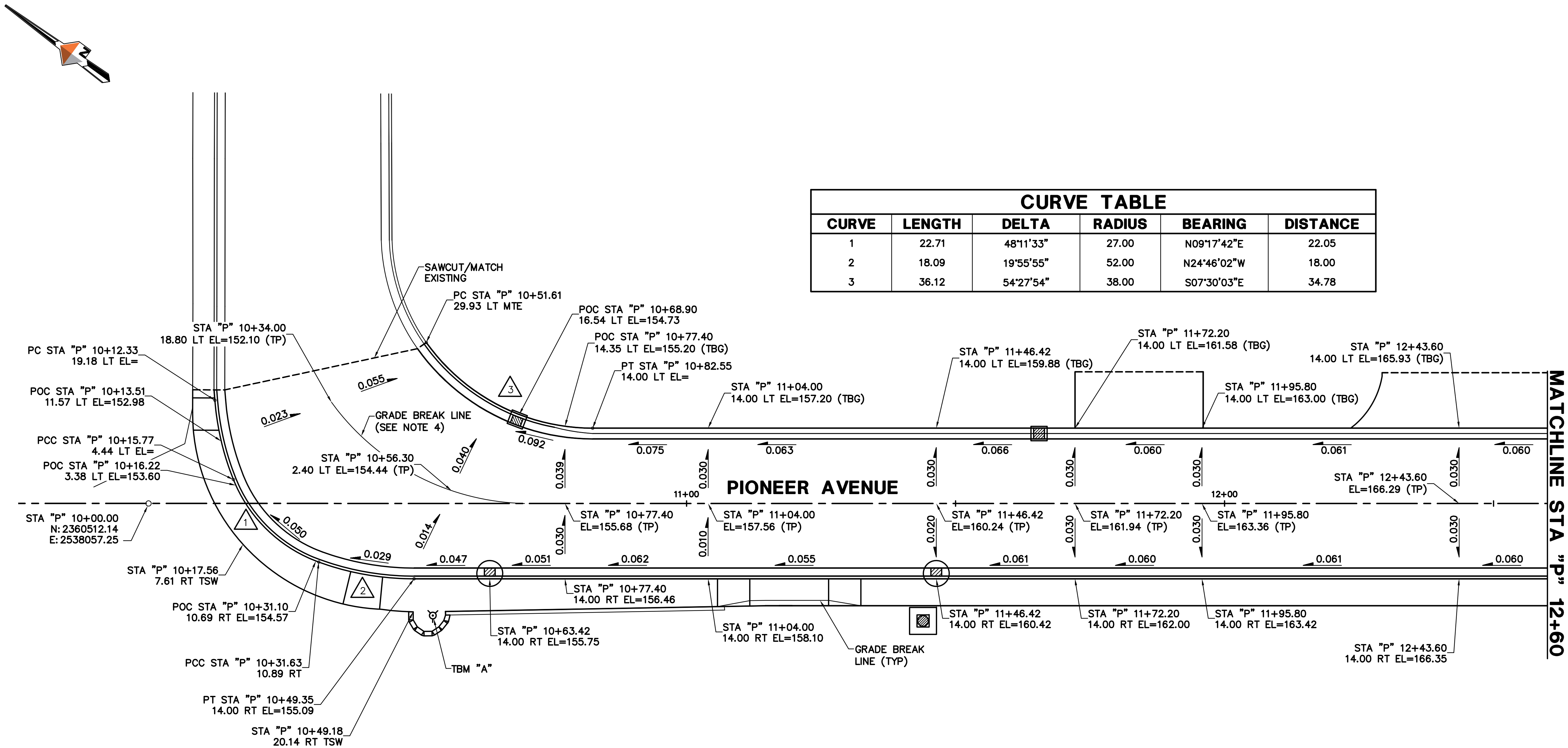
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

DETAILS



CURVE TABLE

CURVE	LENGTH	DELTA	RADIUS	BEARING	DISTANCE
1	22.71	48°11'33"	27.00	N09°17'42"E	22.05
2	18.09	19°55'55"	52.00	N24°46'02"W	18.00
3	36.12	54°27'54"	38.00	S07°30'03"E	34.78

NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP. TOP OF SIDEWALK ARE TSW.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING TOP OF CURB THOUGH VERTICAL CONTROL POINTS.
4. ESTABLISH THE GRADE BREAK LINE BY LAYING STRING LINE THROUGH SHOWN POINTS AND LINING UP WITH CROWN LINE ON CORDOVA STREET.

VERTICAL CONTROL

TBM No.	ELEVATION	DESCRIPTION
A	158.23	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ INTERSECTION OF PIONEER AVE & CORDOVA
B	215.15	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ PIONEER AVE AND FAIRBANKS STREET.
C	220.88	MOST SOUTHWEST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3180 PIONEER AVE.

10 5 0 10 20 30
SCALE IN FEET

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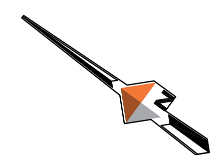
DEPARTMENT OF ENGINEERING

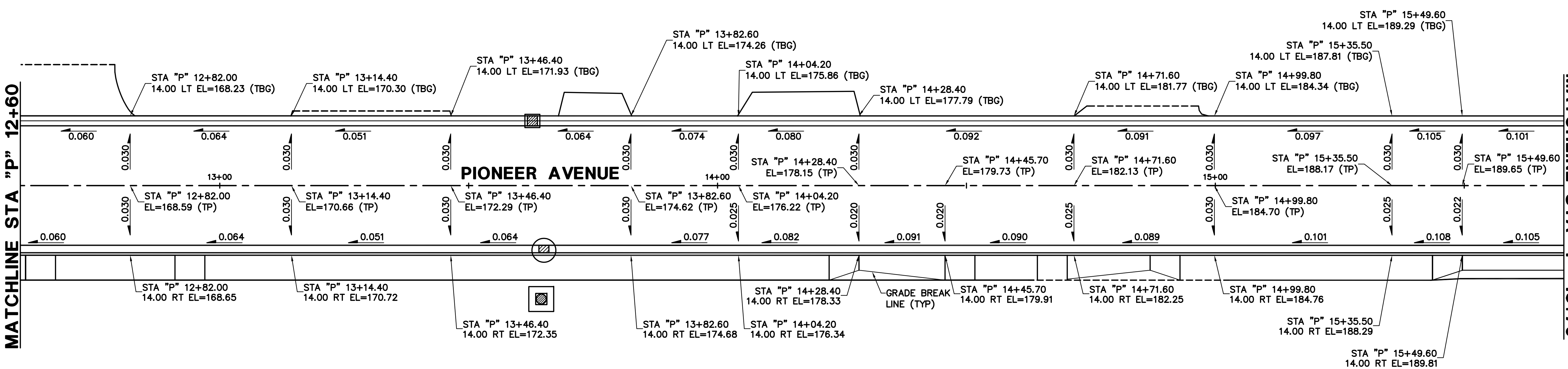
PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

PIONEER AVENUE HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES CORDOVA STREET TO STA "P" 12+60



VERTICAL CONTROL

TBM No.	ELEVATION	DESCRIPTION
A	158.23	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ INTERSECTION OF PIONEER AVE & CORDOVA
B	215.15	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ PIONEER AVE AND FAIRBANKS STREET.
C	220.88	MOST SOUTHWEST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3180 PIONEER AVE.



NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP. TOP OF SIDEWALK ARE TSW.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING TOP OF CURB THOUGH VERTICAL CONTROL POINTS.

10 5 0 10 20 30
SCALE IN FEET

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE
RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

PIONEER AVENUE
HORIZONTAL AND VERTICAL CONTROL
CURB AND GUTTER LAYOUT AND GRADES
STA "P" 12+60 TO STA "P" 15+70

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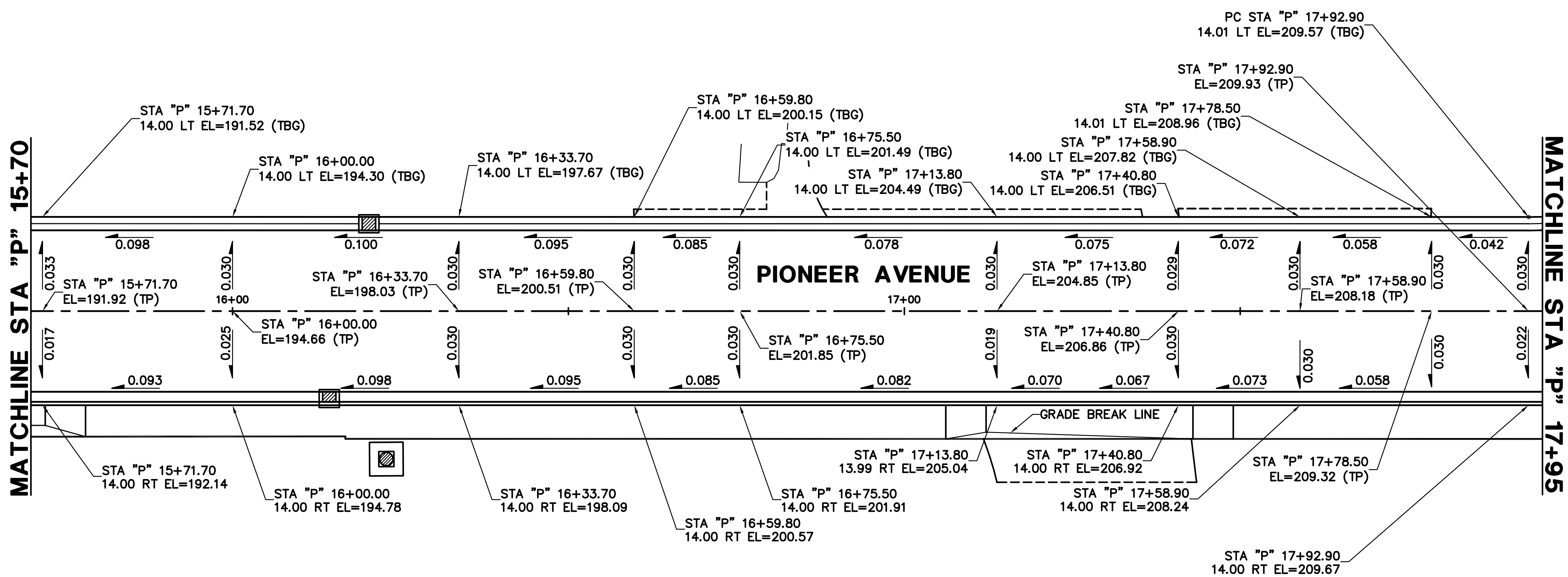
TBM No.	ELEVATION	DESCRIPTION
A	158.23	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ INTERSECTION OF PIONEER AVE & CORDOVA
B	215.15	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ PIONEER AVE AND FAIRBANKS STREET.
C	220.88	MOST SOUTHWEST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3180 PIONEER AVE.

VERTICAL CONTROL



NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP. TOP OF SIDEWALK ARE TSW.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING TOP OF CURB THOUGH VERTICAL CONTROL POINTS.

10 5 0 10 20 30

SCALE IN FEET

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

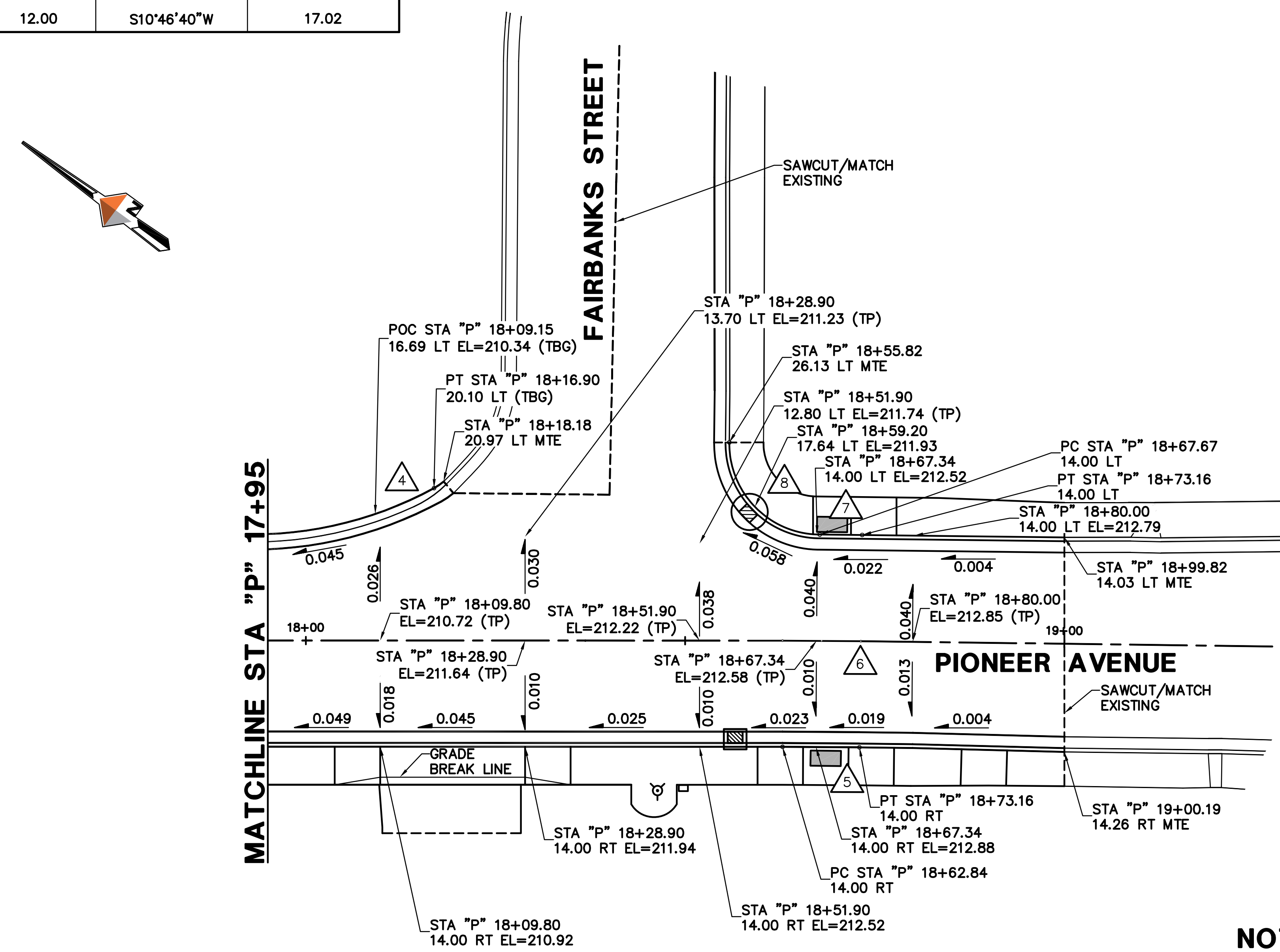
PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

PIONEER AVENUE HORIZONTAL AND VERTICAL CONTROL CURB AND GUTTER LAYOUT AND GRADES STA "P" 15+70 TO STA "P" 17+95

SHEET NO. 10 of 25

CURVE TABLE					
CURVE	LENGTH	DELTA	RADIUS	BEARING	DISTANCE
4	24.96	28°36'10"	50.00	S49°02'05"E	24.70
5	10.14	00°44'21"	786.00	N34°21'49"W	10.14
6	10.32	00°44'21"	800.00	S34°21'49"E	10.32
7	5.59	00°23'36"	814.00	S34°11'27"E	5.59
8	18.92	90°19'49"	12.00	S10°46'40"W	17.02

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
A	158.23	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ INTERSECTION OF PIONEER AVE & CORDOVA
B	215.15	MOST EAST BOLT ON TOP FLANGE OF FIRE HYDRANT @ PIONEER AVE AND FAIRBANKS STREET.
C	220.88	MOST SOUTHWEST BOLT ON TOP FLANGE OF FIRE HYDRANT @ 3180 PIONEER AVE.



NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP. TOP OF SIDEWALK ARE TSW.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING TOP OF CURB THOUGH VERTICAL CONTROL POINTS.

10 5 0 10 20 30
SCALE IN FEET

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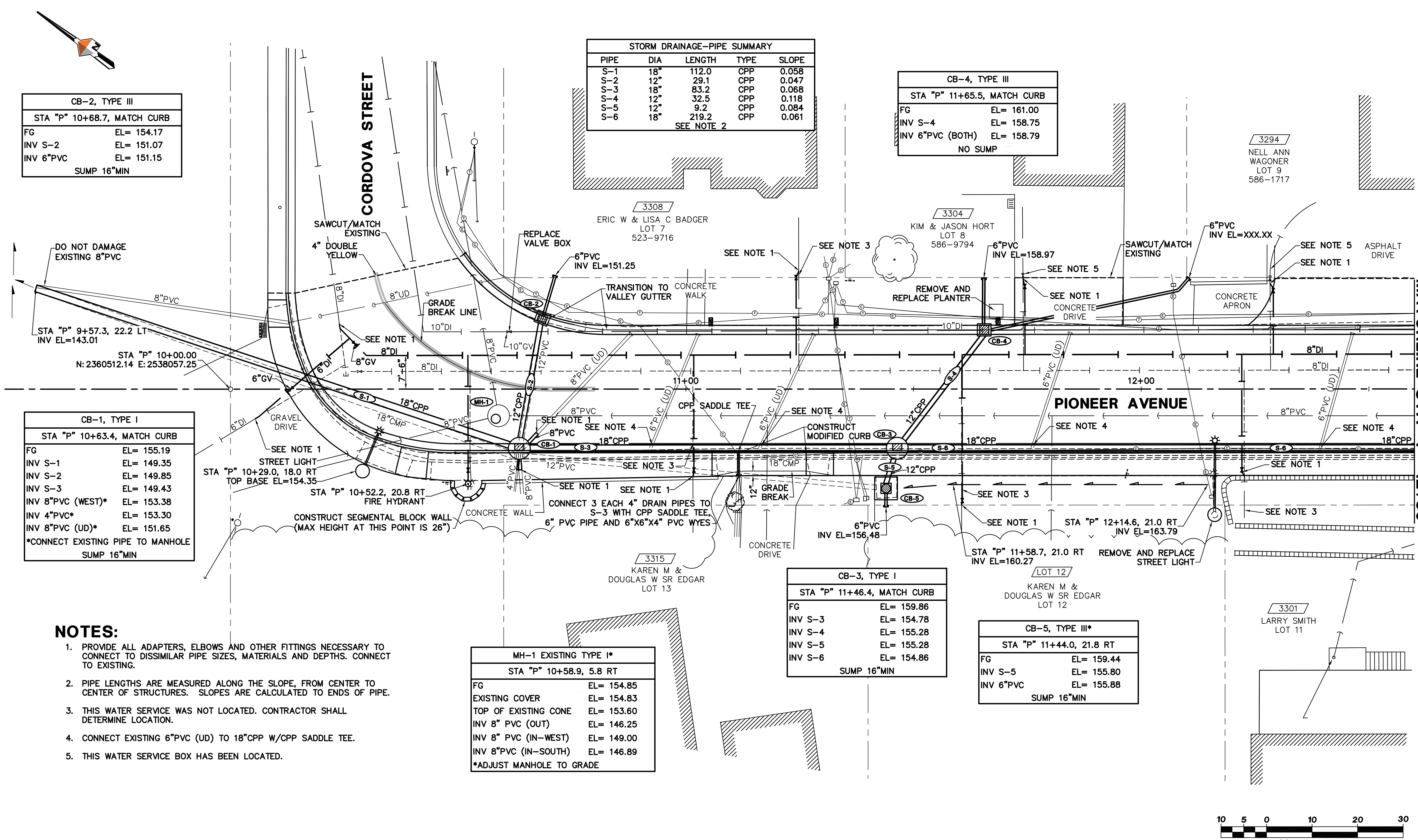
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

**PIONEER AVENUE
RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204**

**PIONEER AVENUE
HORIZONTAL AND VERTICAL CONTROL
CURB AND GUTTER LAYOUT AND GRADES
STA "P" 17+95 TO EOP**



CB-2, TYPE III	
STA "P" 10+68.7, MATCH CURB	
FG	EL= 154.17
INV S-2	EL= 151.07
INV 6"PVC	EL= 151.15
SUMP 16"MIN	

CB-1, TYPE I	
STA "P" 10+63.4, MATCH CURB	
FG	EL= 155.19
INV S-1	EL= 149.35
INV S-2	EL= 149.85
INV S-3	EL= 149.43
INV 8"PVC (WEST)*	EL= 153.38
INV 4"PVC*	EL= 153.30
INV 8"PVC (UD)*	EL= 151.65
*CONNECT EXISTING PIPE TO MANHOLE	
SUMP 16"MIN	

STORM DRAINAGE-PIPE SUMMARY

PIPE	DIA	LENGTH	TYPE	SLOPE
S-1	18"	112.0	CPP	0.058
S-2	12"	29.1	CPP	0.047
S-3	18"	83.2	CPP	0.068
S-4	12"	32.5	CPP	0.118
S-5	12"	9.2	CPP	0.084
S-6	18"	219.2	CPP	0.061

SEE NOTE 2

CB-4, TYPE III	
STA "P" 11+65.5, MATCH CURB	
FG	EL= 161.00
INV S-4	EL= 158.75
INV 6"PVC (BOTH)	EL= 158.79
NO SUMP	

MH-1 EXISTING TYPE I*	
STA "P" 10+58.9, 5.8 RT	
FG	EL= 154.85
EXISTING COVER	EL= 154.83
TOP OF EXISTING CONE	EL= 153.60
INV 8" PVC (OUT)	EL= 146.25
INV 8" PVC (IN-WEST)	EL= 149.00
INV 8"PVC (IN-SOUTH)	EL= 146.89
*ADJUST MANHOLE TO GRADE	

CB-3, TYPE I	
STA "P" 11+46.4, MATCH CURB	
FG	EL= 159.86
INV S-3	EL= 154.78
INV S-4	EL= 155.28
INV S-5	EL= 155.28
INV S-6	EL= 154.86
SUMP 16"MIN	

CB-5, TYPE III*	
STA "P" 11+44.0, 21.8 RT	
FG	EL= 159.44
INV S-5	EL= 155.80
INV 6"PVC	EL= 155.88
SUMP 16"MIN	

NOTES:

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM CENTER TO CENTER OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.
3. THIS WATER SERVICE WAS NOT LOCATED. CONTRACTOR SHALL DETERMINE LOCATION.
4. CONNECT EXISTING 6"PVC (UD) TO 18"CPP W/CPP SADDLE TEE.
5. THIS WATER SERVICE BOX HAS BEEN LOCATED.

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ALASKA'S CAPITAL CITY
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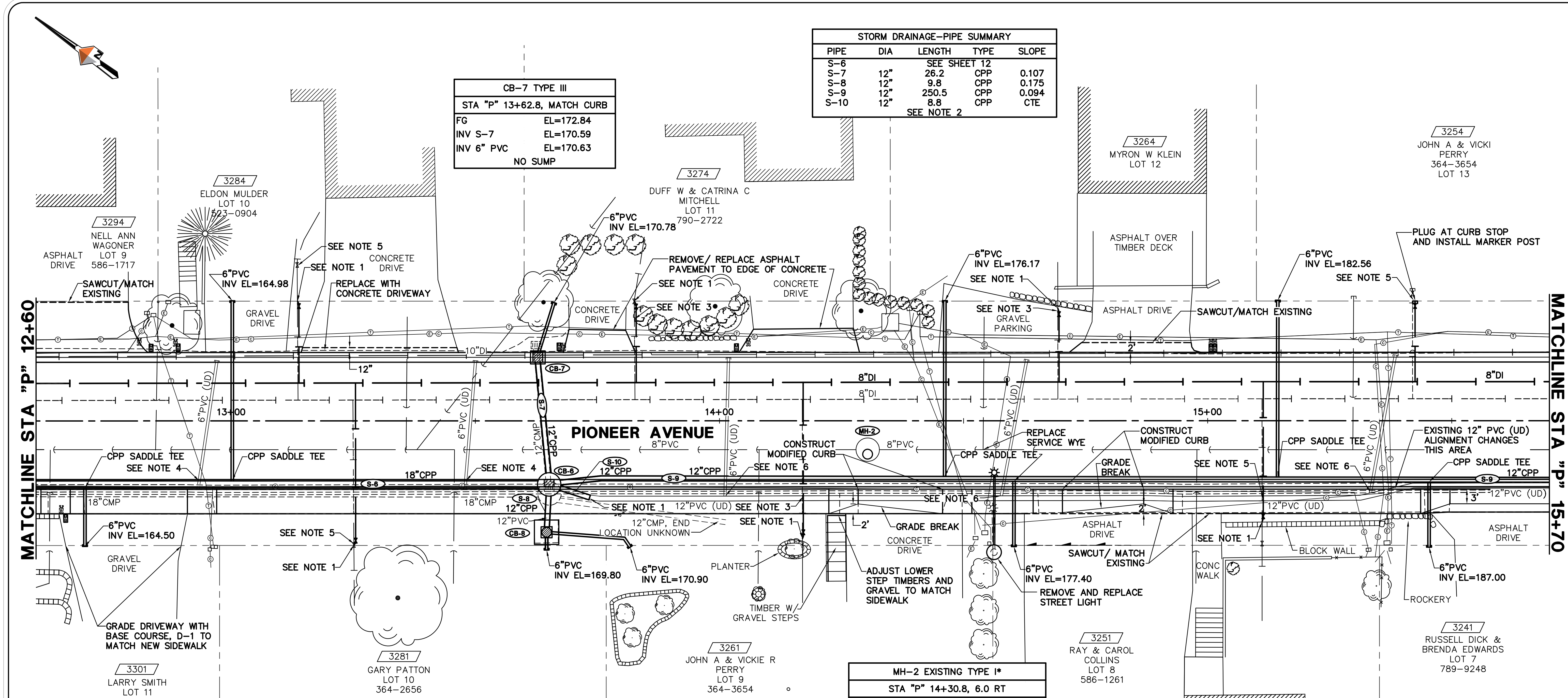
PIONEER AVENUE
RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

PLAN - PIONEER AVENUE
CORDOVA STREET TO STA "P" 12+60



STORM DRAINAGE-PIPE SUMMARY				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-6		SEE SHEET 12		
S-7	12"	26.2	CPP	0.107
S-8	12"	9.8	CPP	0.175
S-9	12"	250.5	CPP	0.094
S-10	12"	8.8	CPP	CTE
SEE NOTE 2				

CB-7 TYPE III	
STA "P" 13+62.8, MATCH CURB	
FG	EL=172.84
INV S-7	EL=170.59
INV 6" PVC	EL=170.63
NO SUMP	

CB-6, TYPE I	
STA "P" 13+65.1, MATCH CURB	
FG	EL= 173.01
INV S-6	EL= 167.95
INV S-7	EL= 168.13
INV S-8	EL= 168.45
INV S-9	EL= 168.13
INV S-10	EL= 169.40
SUMP 16"MIN	

CB-8 TYPE III*	
STA "P" 13+64.6, 22.8 RT	
FG	EL= 172.62
INV S-8	EL= 169.62
INV 6"PVC (BOTH)	EL= 169.70
* W/ AREA DRAIN	
SUMP 16" MIN	

MH-2 EXISTING TYPE I*	
STA "P" 14+30.8, 6.0 RT	
FG	EL= 178.16
EXISTING COVER	EL= 177.95
TOP OF EXISTING CONE	EL= 176.70
INV 8" PVC (OUT)	EL= 170.67
INV 8" PVC (IN)	EL= 170.72
* ADJUST MANHOLE TO GRADE	

NOTES:

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM CENTER TO CENTER OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.
3. THIS WATER SERVICE WAS NOT LOCATED. CONTRACTOR SHALL DETERMINE LOCATION.
4. CONNECT EXISTING 6"PVC (UD) TO 18"CPP W/CPP SADDLE TEE.
5. THIS WATER SERVICE BOX HAS BEEN LOCATED.
6. EXISTING 6"PVC (UD) TO REMAIN CONNECTED TO EXISTING 12"PVC (UD).

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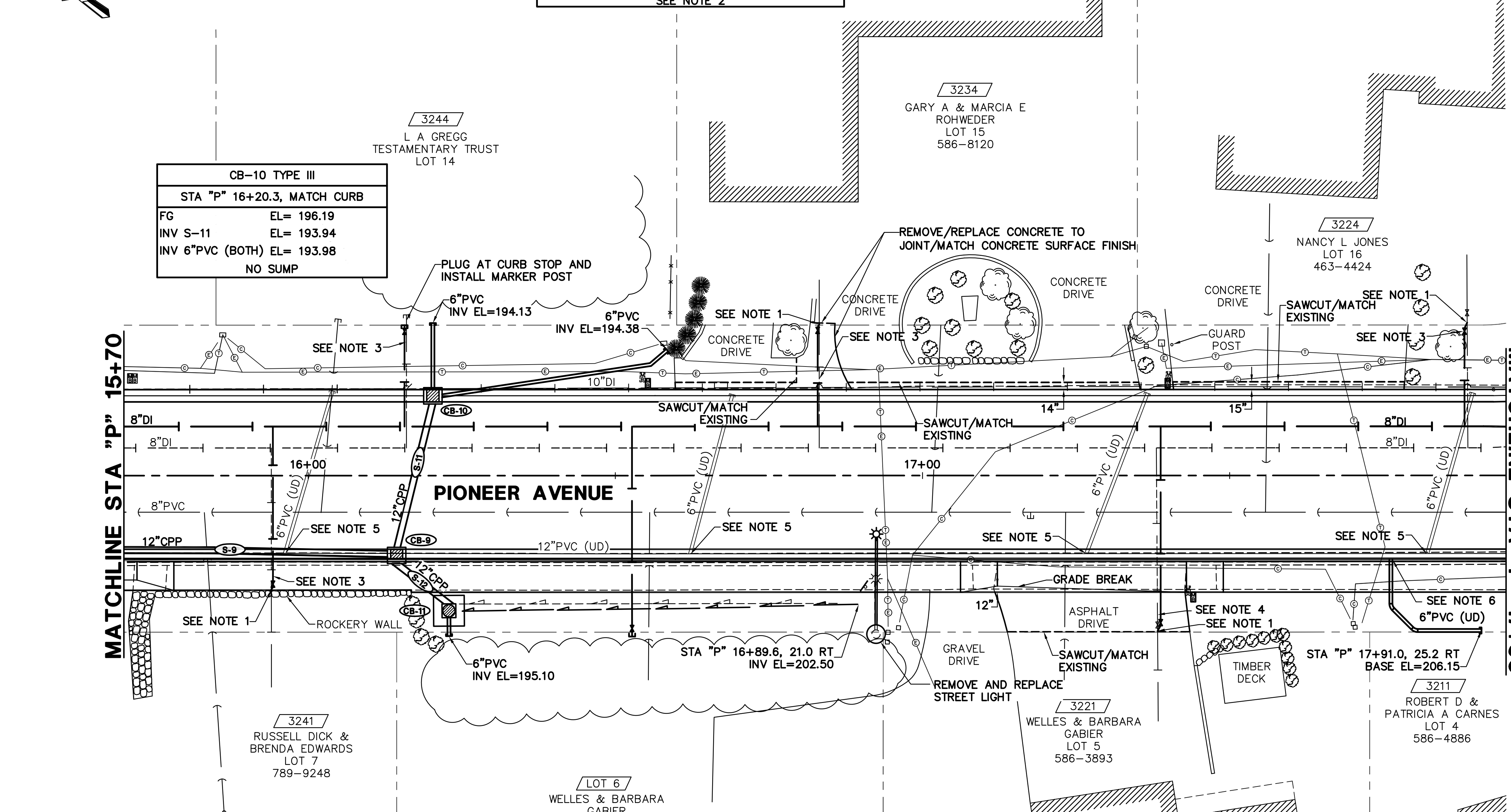
PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

PLAN - PIONEER AVENUE STA "P" 12+60 TO STA "P" 15+70

STORM DRAINAGE-PIPE SUMMARY				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-9		SEE SHEET 13		
S-11	12"	26.6	CPP	0.043
S-12	12"	12.7	CPP	0.069
		SEE NOTE 2		



CB-10 TYPE III	
STA "P" 16+20.3, MATCH CURB	
FG	EL= 196.19
INV S-11	EL= 193.94
INV 6"PVC (BOTH)	EL= 193.98
NO SUMP	

CB-9, TYPE IV	
STA "P" 16+14.4, MATCH CURB	
FG	EL= 195.63
INV S-9	EL= 191.13
INV S-11	EL= 192.88
INV S-12	EL= 192.88
SUMP 16"MIN	

CB-11 TYPE III	
STA "P" 16+22.9, 22.0 RT	
FG	EL= 196.12
INV S-12	EL= 193.62
INV 6" PVC	EL= 193.70
* W/ AREA DRAIN	
SUMP 16" MIN	

10 5 0 10 20 30
SCALE IN FEET

NOTES:

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM CENTER TO CENTER OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.
3. THIS WATER SERVICE WAS NOT LOCATED. CONTRACTOR SHALL DETERMINE LOCATION.
4. THIS WATER SERVICE BOX HAS BEEN LOCATED.
5. EXISTING 6"PVC (UD) TO REMAIN CONNECTED TO EXISTING 12"PVC (UD)
6. CONNECT TO EXISTING 12" PVC (UD) WITH 12"X12"X6" WYE..

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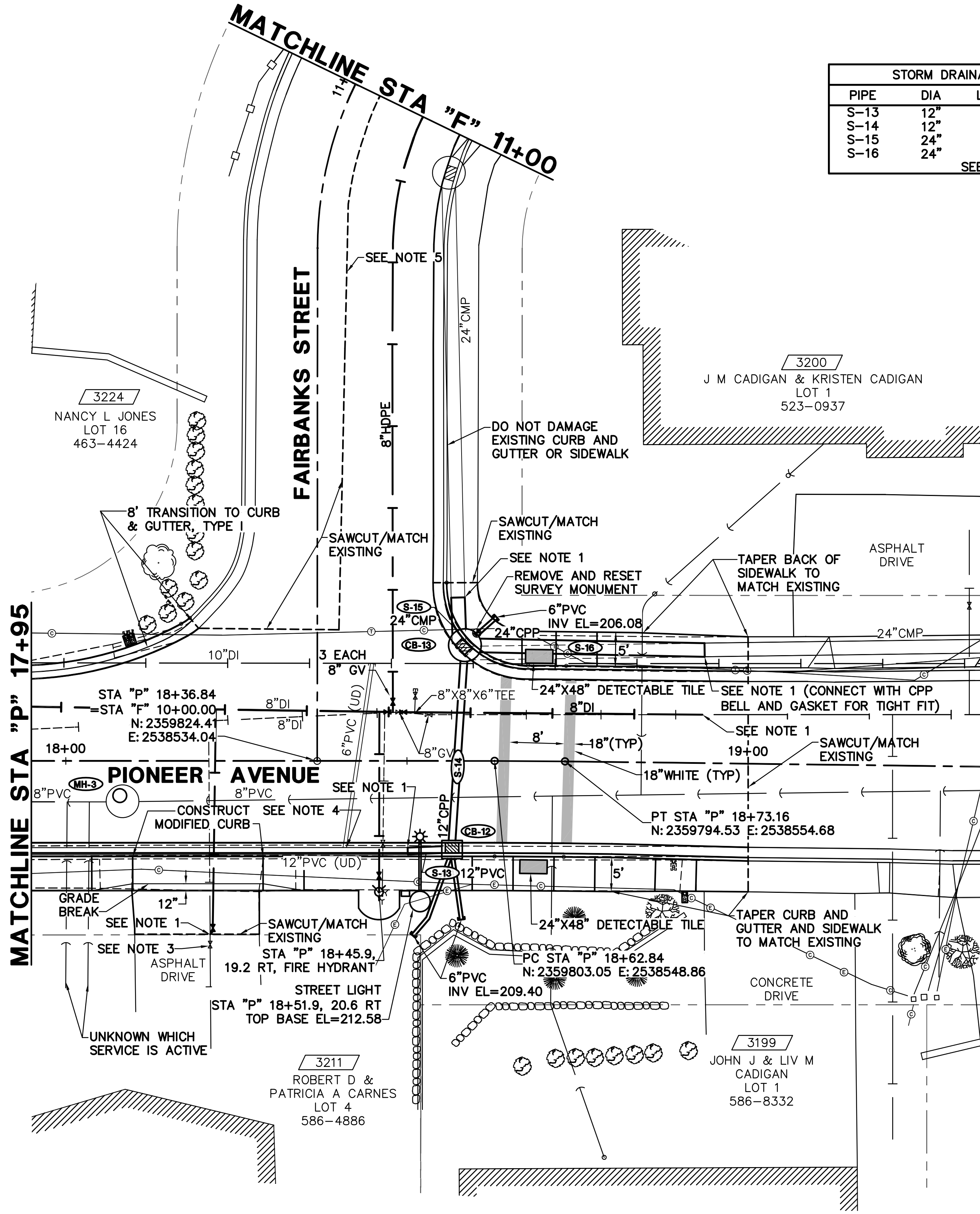
PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

PLAN - PIONEER AVENUE STA "P" 15+70 TO STA "P" 17+95



STORM DRAINAGE-PIPE SUMMARY				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-13	12"	6.5	PVC	CTE
S-14	12"	30.0	CPP	0.072
S-15	24"	7.3	CMP	CTE
S-16	24"	35.2	CPP	CTE

SEE NOTE 2

MH-3 EXISTING TYPE I*	
STA "P" 18+07.9, 5.1 RT	
FG	EL= 210.51
EXISTING COVER	EL= 210.27
TOP OF EXISTING CONE	EL= 209.48
INV 8" PVC (OUT)	EL= 203.62
INV 8" PVC (IN)	EL= 203.75
* ADJUST MANHOLE TO GRADE	

CB-13, TYPE I	
STA "P" 18+58.5, MATCH CURB	
FG	EL= 211.37
INV S-14	EL= 207.32
INV S-15	EL= 205.82
INV S-16	EL= 205.90
INV 6"PVC	EL= 205.98
SUMP 16"MIN	

CB-12 TYPE III	
STA "P" 18+56.6, MATCH CURB	
FG	EL= 212.06
INV S-13	EL= 209.56
INV S-14	EL= 209.26
INV 6"PVC (BOTH)	EL= 209.30
SUMP 16" MIN	

NOTES:

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM CENTER TO CENTER OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.
3. THIS WATER SERVICE BOX HAS BEEN LOCATED.
4. EXISTING 6"PVC (UD) TO REMAIN CONNECTED TO EXISTING 12"PVC (UD).
5. DO NOT DAMAGE ASPHALT PAVEMENT TO LEFT OF EXISTING CENTERLINE JOINT. IF ANY PAVEMENT IS DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS, THE PAVEMENT SHALL BE REMOVED AND REPLACED TO THE EDGE OF GUTTER ON THE LEFT SIDE FOR A MINIMUM LENGTH OF 20' AT THE CONTRACTOR'S EXPENSE.

10 5 0 10 20 30
SCALE IN FEET

STATE OF ALASKA
49th
Peter L. Hildre
No.CE4005
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JOB No. J70388 | DRAWN BY: STAFF | DESIGNED BY: P. HILDRE | CHECKED BY: STAFF | DATE: MARCH 2011

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

PLAN - PIONEER AVENUE STA "P" 17+95 TO END FAIRBANKS STREET TO STA "F" 11+00

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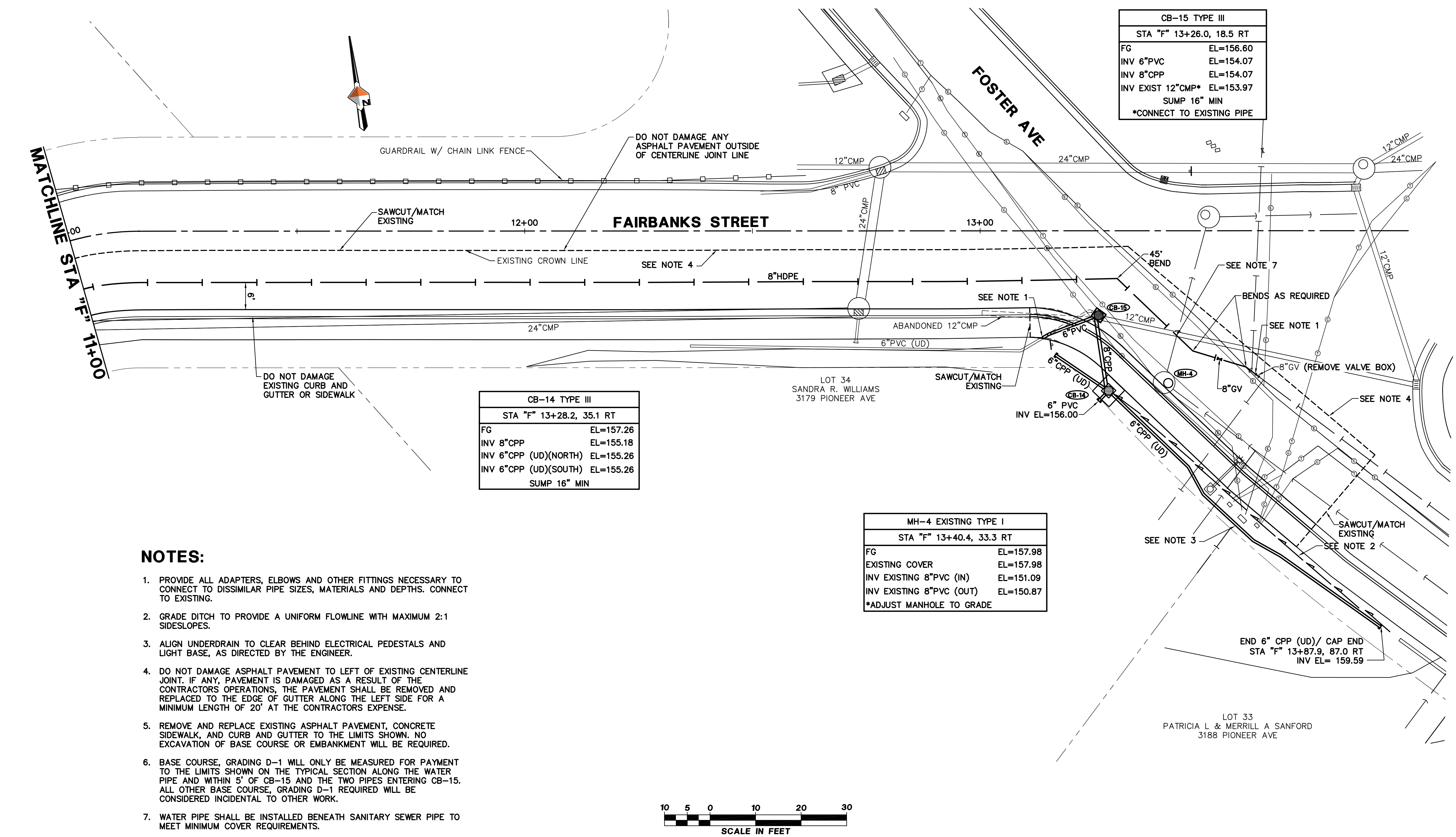

CB-15 TYPE III	
STA "F" 13+26.0, 18.5 RT	
FG	EL=156.60
INV 6"PVC	EL=154.07
INV 8"CPP	EL=154.07
INV EXIST 12"CMP*	EL=153.97
SUMP 16" MIN	
*CONNECT TO EXISTING PIPE	

CB-14 TYPE III	
STA "F" 13+28.2, 35.1 RT	
FG	EL=157.26
INV 8"CPP	EL=155.18
INV 6"CPP (UD)(NORTH)	EL=155.26
INV 6"CPP (UD)(SOUTH)	EL=155.26
SUMP 16" MIN	

MH-4 EXISTING TYPE I	
STA "F" 13+40.4, 33.3 RT	
FG	EL=157.98
EXISTING COVER	EL=157.98
INV EXISTING 8"PVC (IN)	EL=151.09
INV EXISTING 8"PVC (OUT)	EL=150.87
*ADJUST MANHOLE TO GRADE	

NOTES:

1. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS. CONNECT TO EXISTING.
2. GRADE DITCH TO PROVIDE A UNIFORM FLOWLINE WITH MAXIMUM 2:1 SIDESLOPES.
3. ALIGN UNDERDRAIN TO CLEAR BEHIND ELECTRICAL PEDESTALS AND LIGHT BASE, AS DIRECTED BY THE ENGINEER.
4. DO NOT DAMAGE ASPHALT PAVEMENT TO LEFT OF EXISTING CENTERLINE JOINT. IF ANY, PAVEMENT IS DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS, THE PAVEMENT SHALL BE REMOVED AND REPLACED TO THE EDGE OF GUTTER ALONG THE LEFT SIDE FOR A MINIMUM LENGTH OF 20' AT THE CONTRACTORS EXPENSE.
5. REMOVE AND REPLACE EXISTING ASPHALT PAVEMENT, CONCRETE SIDEWALK, AND CURB AND GUTTER TO THE LIMITS SHOWN. NO EXCAVATION OF BASE COURSE OR EMBANKMENT WILL BE REQUIRED.
6. BASE COURSE, GRADING D-1 WILL ONLY BE MEASURED FOR PAYMENT TO THE LIMITS SHOWN ON THE TYPICAL SECTION ALONG THE WATER PIPE AND WITHIN 5' OF CB-15 AND THE TWO PIPES ENTERING CB-15. ALL OTHER BASE COURSE, GRADING D-1 REQUIRED WILL BE CONSIDERED INCIDENTAL TO OTHER WORK.
7. WATER PIPE SHALL BE INSTALLED BENEATH SANITARY SEWER PIPE TO MEET MINIMUM COVER REQUIREMENTS.

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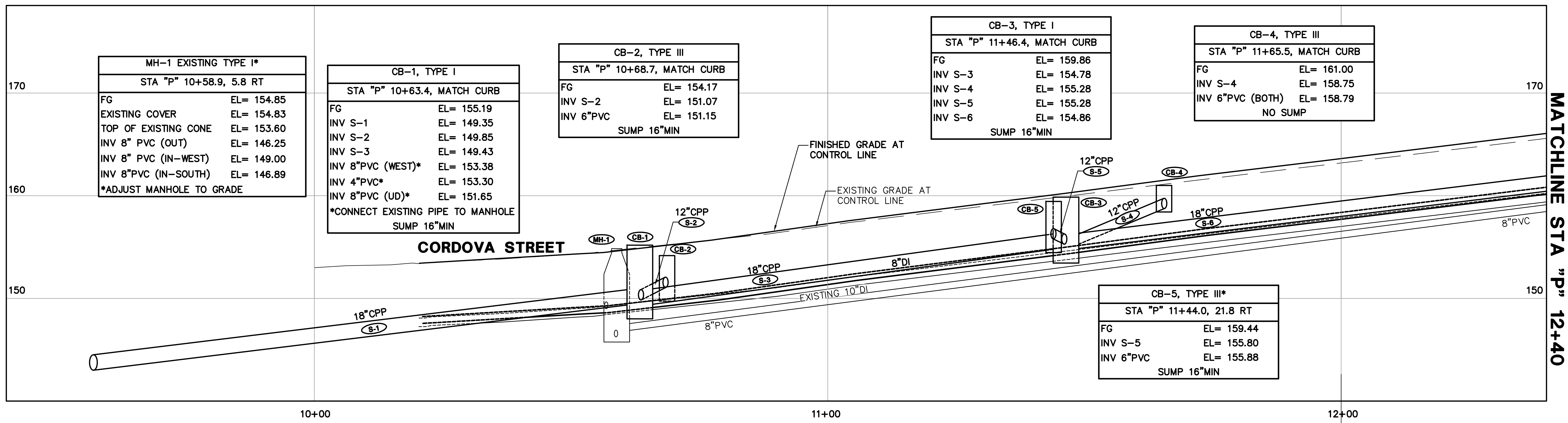
CITY/BOROUGH OF JUNEAU ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

PLAN - FAIRBANKS STREET
STA "F" 11+00 TO FOSTER AVENUE



MH-1 EXISTING TYPE I*	
STA "P" 10+58.9, 5.8 RT	
FG	EL= 154.85
EXISTING COVER	EL= 154.83
TOP OF EXISTING CONE	EL= 153.60
INV 8" PVC (OUT)	EL= 146.25
INV 8" PVC (IN-WEST)	EL= 149.00
INV 8"PVC (IN-SOUTH)	EL= 146.89
*ADJUST MANHOLE TO GRADE	

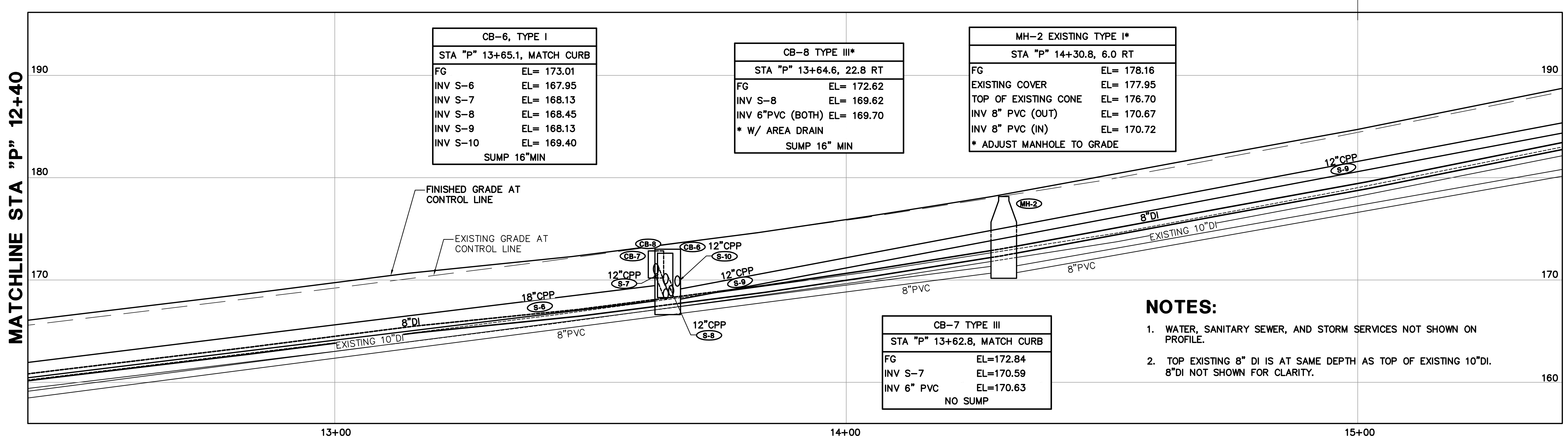
CB-1, TYPE I	
STA "P" 10+63.4, MATCH CURB	
FG	EL= 155.19
INV S-1	EL= 149.35
INV S-2	EL= 149.85
INV S-3	EL= 149.43
INV 8"PVC (WEST)*	EL= 153.38
INV 4"PVC*	EL= 153.30
INV 8"PVC (UD)*	EL= 151.65
*CONNECT EXISTING PIPE TO MANHOLE	
SUMP 16"MIN	

CB-2, TYPE III	
STA "P" 10+68.7, MATCH CURB	
FG	EL= 154.17
INV S-2	EL= 151.07
INV 6"PVC	EL= 151.15
SUMP 16"MIN	

CB-3, TYPE I	
STA "P" 11+46.4, MATCH CURB	
FG	EL= 159.86
INV S-3	EL= 154.78
INV S-4	EL= 155.28
INV S-5	EL= 155.28
INV S-6	EL= 154.86
SUMP 16"MIN	

CB-4, TYPE III	
STA "P" 11+65.5, MATCH CURB	
FG	EL= 161.00
INV S-4	EL= 158.75
INV 6"PVC (BOTH)	EL= 158.79
NO SUMP	

CB-5, TYPE III*	
STA "P" 11+44.0, 21.8 RT	
FG	EL= 159.44
INV S-5	EL= 155.80
INV 6"PVC	EL= 155.88
SUMP 16"MIN	



CB-6, TYPE I	
STA "P" 13+65.1, MATCH CURB	
FG	EL= 173.01
INV S-6	EL= 167.95
INV S-7	EL= 168.13
INV S-8	EL= 168.45
INV S-9	EL= 168.13
INV S-10	EL= 169.40
SUMP 16"MIN	

CB-8 TYPE III*	
STA "P" 13+64.6, 22.8 RT	
FG	EL= 172.62
INV S-8	EL= 169.62
INV 6"PVC (BOTH)	EL= 169.70
* W/ AREA DRAIN	
SUMP 16" MIN	

MH-2 EXISTING TYPE I*	
STA "P" 14+30.8, 6.0 RT	
FG	EL= 178.16
EXISTING COVER	EL= 177.95
TOP OF EXISTING CONE	EL= 176.70
INV 8" PVC (OUT)	EL= 170.67
INV 8" PVC (IN)	EL= 170.72
* ADJUST MANHOLE TO GRADE	

CB-7 TYPE III	
STA "P" 13+62.8, MATCH CURB	
FG	EL=172.84
INV S-7	EL=170.59
INV 6" PVC	EL=170.63
NO SUMP	

NOTES:

1. WATER, SANITARY SEWER, AND STORM SERVICES NOT SHOWN ON PROFILE.
2. TOP EXISTING 8" DI IS AT SAME DEPTH AS TOP OF EXISTING 10"DI. 8"DI NOT SHOWN FOR CLARITY.

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SCALE IN FEET

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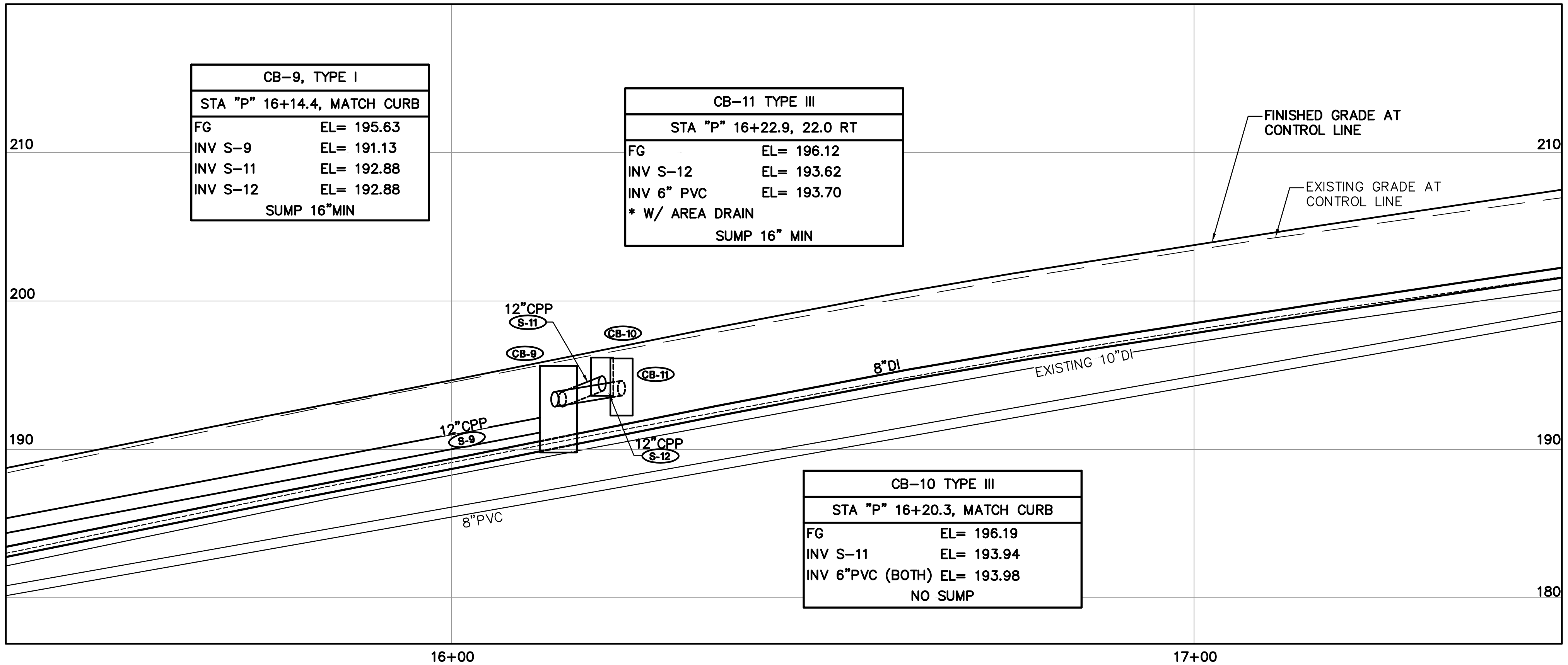
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

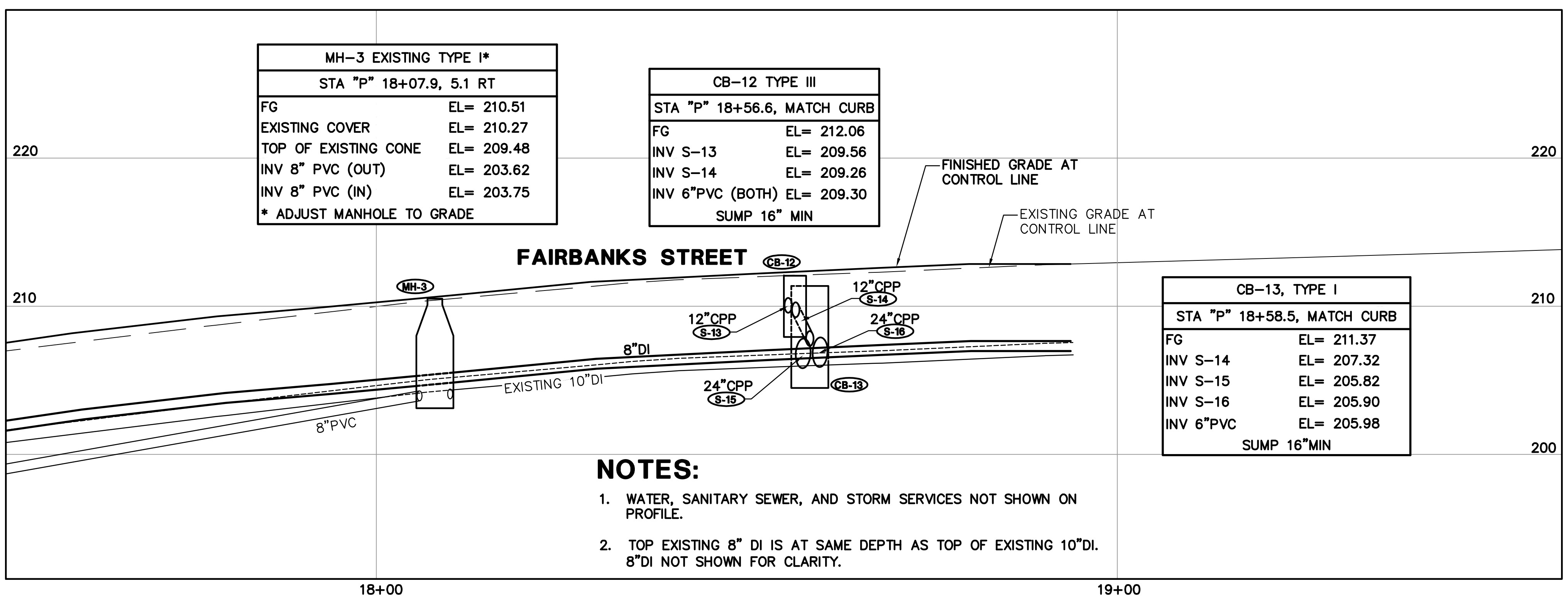
PROFILE - PIONEER AVENUE CORDOVA STREET TO STA "P" 15+40



CB-9, TYPE I	
STA "P" 16+14.4, MATCH CURB	
FG	EL= 195.63
INV S-9	EL= 191.13
INV S-11	EL= 192.88
INV S-12	EL= 192.88
SUMP 16"MIN	

CB-11 TYPE III	
STA "P" 16+22.9, 22.0 RT	
FG	EL= 196.12
INV S-12	EL= 193.62
INV 6" PVC	EL= 193.70
* W/ AREA DRAIN	
SUMP 16" MIN	

CB-10 TYPE III	
STA "P" 16+20.3, MATCH CURB	
FG	EL= 196.19
INV S-11	EL= 193.94
INV 6"PVC (BOTH)	EL= 193.98
NO SUMP	



MH-3 EXISTING TYPE I*	
STA "P" 18+07.9, 5.1 RT	
FG	EL= 210.51
EXISTING COVER	EL= 210.27
TOP OF EXISTING CONE	EL= 209.48
INV 8" PVC (OUT)	EL= 203.62
INV 8" PVC (IN)	EL= 203.75
* ADJUST MANHOLE TO GRADE	

CB-12 TYPE III	
STA "P" 18+56.6, MATCH CURB	
FG	EL= 212.06
INV S-13	EL= 209.56
INV S-14	EL= 209.26
INV 6"PVC (BOTH)	EL= 209.30
SUMP 16" MIN	

CB-13, TYPE I	
STA "P" 18+58.5, MATCH CURB	
FG	EL= 211.37
INV S-14	EL= 207.32
INV S-15	EL= 205.82
INV S-16	EL= 205.90
INV 6"PVC	EL= 205.98
SUMP 16"MIN	

NOTES:

1. WATER, SANITARY SEWER, AND STORM SERVICES NOT SHOWN ON PROFILE.
2. TOP EXISTING 8" DI IS AT SAME DEPTH AS TOP OF EXISTING 10"DI. 8"DI NOT SHOWN FOR CLARITY.

10 5 0 10 20 30
SCALE IN FEET

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ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

PROFILE - PIONEER AVENUE STA "P" 15+40 TO END

SHEET NO.

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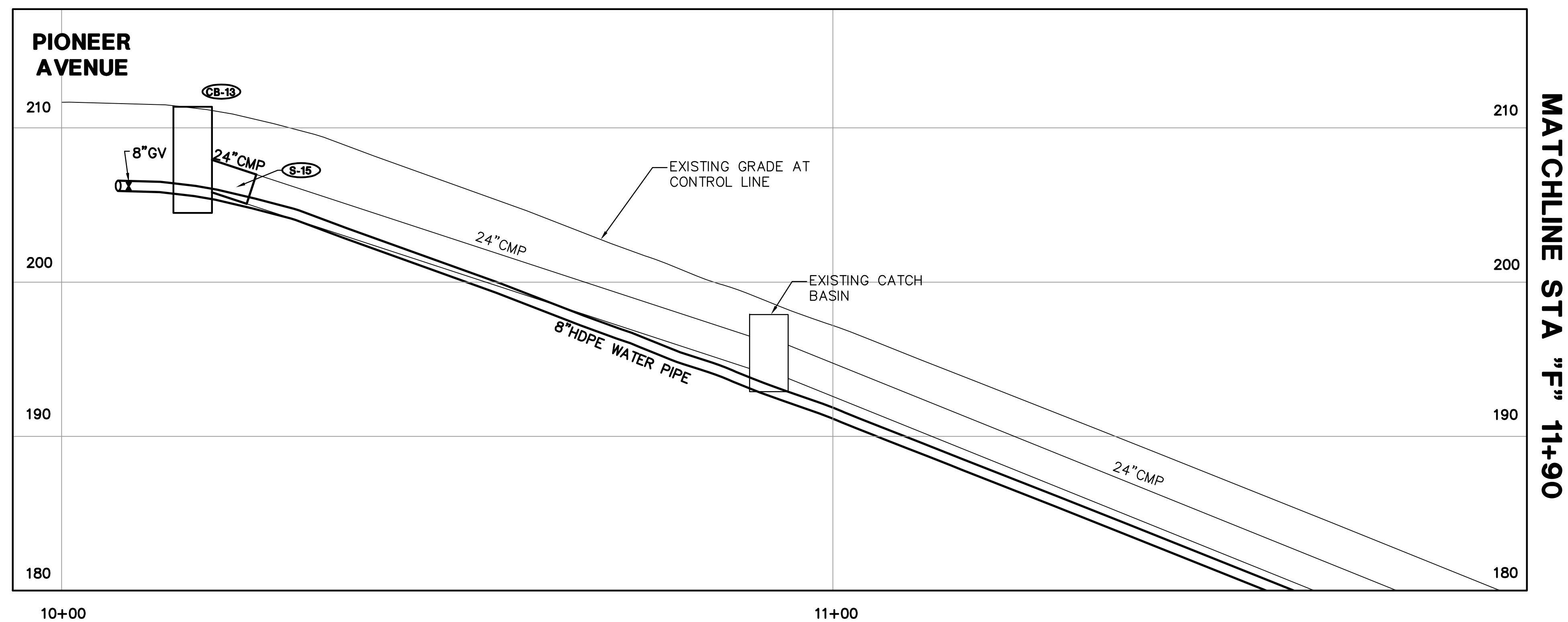
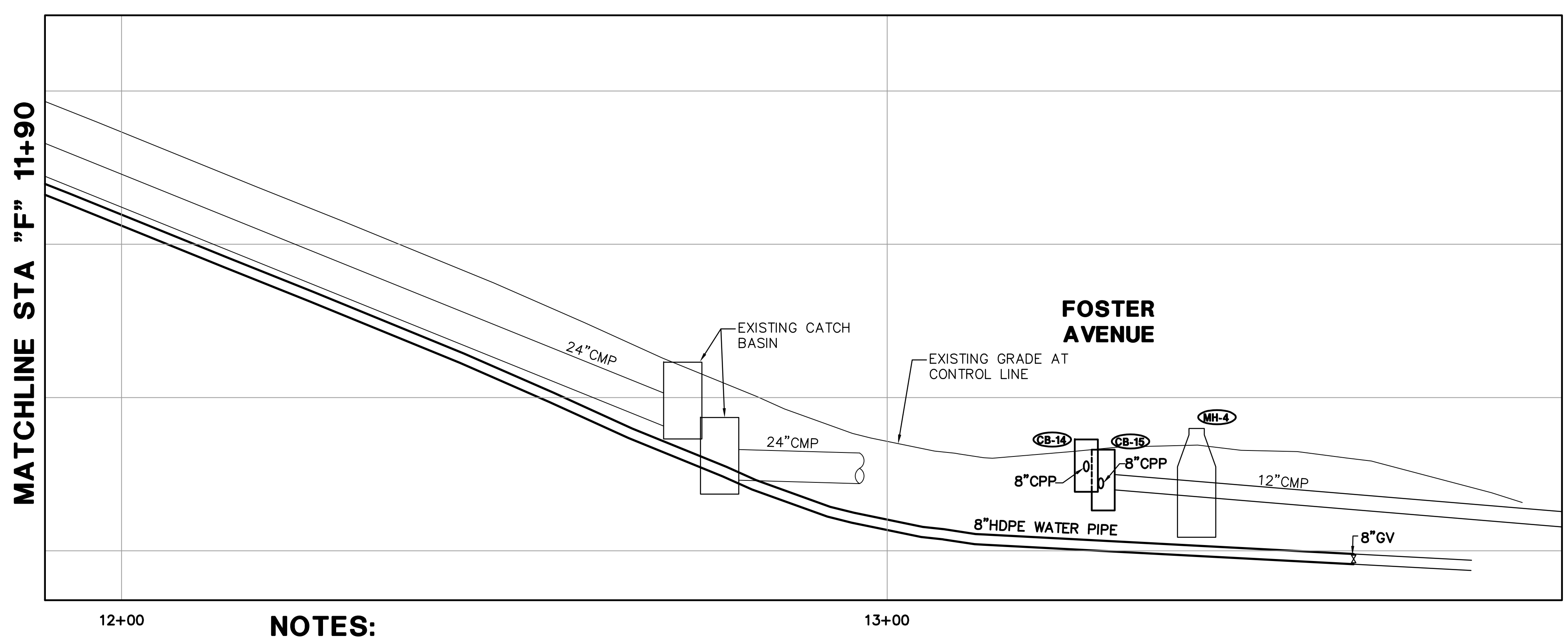
CB-13, TYPE I	
STA "P" 18+58.5, MATCH CURB	
FG	EL= 211.37
INV S-14	EL= 207.32
INV S-15	EL= 205.82
INV S-16	EL= 205.90
INV 6"PVC	EL= 205.98
SUMP 16"MIN	





MH-4 EXISTING TYPE I	
STA "F" 13+40.4, 33.3 RT	
FG	EL=157.98
EXISTING COVER	EL=157.98
INV EXISTING 8"PVC (IN)	EL=151.09
INV EXISTING 8"PVC (OUT)	EL=150.87
*ADJUST MANHOLE TO GRADE	

CB-14 TYPE III	
STA "F" 13+28.2, 35.1 RT	
FG	EL=157.26
INV 8"CPP	EL=155.18
INV 6"CPP (UD)(NORTH)	EL=155.26
INV 6"CPP (UD)(SOUTH)	EL=155.26
SUMP 16" MIN	

CB-15 TYPE III	
STA "F" 13+26.0, 18.5 RT	
FG	EL=156.60
INV 6"PVC	EL=154.07
INV 8"CPP	EL=154.07
INV EXIST 12"CMP*	EL=153.97
SUMP 16" MIN	
*CONNECT TO EXISTING PIPE	

NOTES:

1. WATER, SANITARY SEWER, AND STORM SERVICES NOT SHOWN ON PROFILE.

10 5 0 10 20 30
SCALE IN FEET

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

PROFILE - FAIRBANKS STREET

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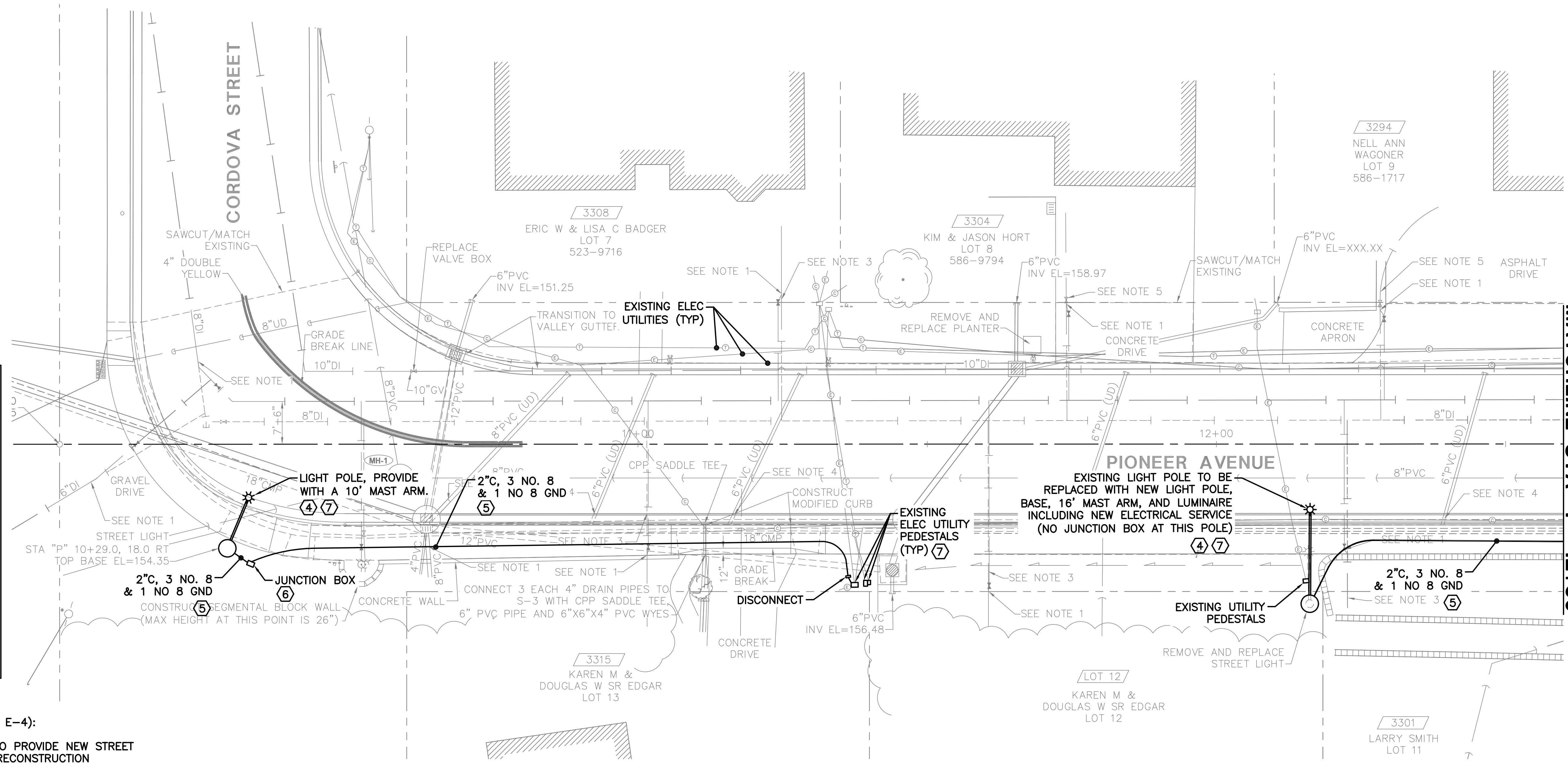

LEGEND

	FUSE
	GROUND BUSS
	POLE MOUNT LUMINAIRE.
C	CONDUIT
ELEC	ELECTRIC OR ELECTRICAL
GALV	GALVANIZED
GRS	GALVANIZED RIGID STEEL
GND	GROUND
NEC	NATIONAL ELEC CODE
NO.	NUMBER
TYP	TYPICAL

NOTES (APPLICABLE TO SHEETS E-1 THRU E-4):

1. THE PURPOSE OF THIS PROJECT IS TO PROVIDE NEW STREET LIGHTING FOR THE PIONEER AVENUE RECONSTRUCTION PROJECT. PROVIDE ALL WORK SHOWN ON THE DRAWINGS AND AS NECESSARY TO PROVIDE NEW STREET LIGHTS AS SHOWN. PERFORM ALL WORK PER THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE STATE AND LOCAL CODES. ALL WORK SHOWN IN NEW UNLESS OTHERWISE NOTED.

2. COORDINATE INSTALLATION WITH OTHER TRADES. OBTAIN LOCATES PRIOR TO DIGGING. RELOCATE CONDUIT, J-BOXES & EQUIPMENT AS NECESSARY TO AVOID CONFLICTS WITH PIPING AND OTHER STRUCTURES. INSTALL LIGHT BASES WHERE SHOWN.

3. COORDINATE WITH UTILITY TO PROVIDE SERVICES TO THE NEW LIGHT POLES. UTILITY WORK TO BE PAID FOR BY OTHERS.

4. PROVIDE NEW LIGHT POLES PER LIGHT POLE DETAILS ON SHEET E-6. THE LIGHT POLES SHALL MEET CBJ STANDARD 118. THE LUMINARIES SHALL CONSIST OF 120 LED LAMPS, 140W, WITH ELECTRONIC DRIVER, TYPE 3 DISTRIBUTION, FULL CUTOFF, 5100K, WHITE, MINIMUM INITIAL 7400 LUMENS, 240V. GRAY, SLIP FITTER MOUNT, HOUSE SIDE CUTOFF OPTICS, WITH TERMINAL BLOCKS INSIDE LUMINAIRE AND PHOTOCELL RECEPTACLE (NEMA). KIM 1SAWP9LE3120L5K240LGA-25HSFTB. PROVIDE A NEMA BASE PHOTOCELL SEPARATELY, INSTALL PHOTOCELL ON RECEPTACLE PROVIDED WITH LUMINAIRE. LOCATE THE LIGHT POLES WHERE SHOWN ON SHEETS E-1 THROUGH E-4 AND AS SHOWN ON THE CIVIL SHEETS. ORIENT THE LIGHT POLES PERPENDICULAR TO THE CURB, AND INSTALL PER THE NOTES ON THIS SHEET.

5. ALL CONDUIT SHALL BE SCHEDULE 40 PVC, HDPE OR GRS. USE GRS ELBOWS AND SWEEPS. USE THREE CONDUCTOR CABLE WITH COPPER CONDUCTORS WITH XHHW OR RHW INSULATION RATED AT 600V. USE TWO CONDUCTORS FOR POWER AND ONE AS A SPARE. SPLICE CONDUCTORS ONLY IN LIGHT POLES. BURY CONDUIT PER TRENCH DETAIL ON SHEET E-5. LOCATE CONDUIT WHERE SHOWN ON THESE DRAWINGS. THE CABLE SHALL HAVE AN OUTER JACKET OF XLP OR APPROVED EQUAL. NO PLOWING IN OF CONDUIT. MAINTAIN SEPARATION OF CONDUIT PER TRENCH DETAIL WITH OTHER PIPING AND UTILITY CONDUITS. DO NOT SHARE A TRENCH WITH OTHER UTILITY PIPING. CONDUIT LOCATIONS ARE NOT SCHEMATIC IN NATURE. LOCATE CONDUITS WHERE SHOWN. MODIFY LOCATIONS AS REQUIRED TO AVOID OBSTACLES. OBTAIN ENGINEER'S PERMISSION PRIOR TO RELOCATING CONDUIT.

6. PROVIDE TYPE IA JUNCTION BOXES PER A.D.O.T. STANDARD DRAWING L-23. INSTALL PER LIGHT POLE MOUNTING DETAIL ON SHEET E-6. LOCATE JUNCTION BOXES WHERE SHOWN ON THESE DRAWINGS AND PER THE CIVIL DRAWINGS.

7. POWER EACH LIGHT POLE FROM THE UTILITY TRANSFORMER OR PEDESTAL VIA THE FUSED DISCONNECT AS SHOWN. SEE SHEET E-5 FOR THE LIGHT POLE SINGLE LINE DIAGRAM. USE 2" CONDUIT WITH 3 NO. 8 CABLE AND 1 NO. 8 GROUND TO FEED EACH LIGHT POLE. INSTALL THE CONDUIT FROM THE POLE TO THE JUNCTION BOX (IF SHOWN), JUNCTION BOX TO THE DISCONNECT, DISCONNECT TO THE TRANSFORMER OR PEDESTAL. STUB THE CONDUIT UP INTO THE TRANSFORMER OR PEDESTAL. PULL THE CABLE AND GROUND IN THE CONDUIT TO THE JUNCTION BOX, FROM THE JUNCTION BOX TO THE DISCONNECT. COIL SUFFICIENT CABLE SLACK INSIDE THE DISCONNECT TO REACH THE TRANSFORMER OR PEDESTAL. THE UTILITY WILL PULL THE CONDUCTORS FROM THE DISCONNECTS AND TERMINATE THEM IN THE TRANSFORMER OR PEDESTAL. COORDINATE WITH UTILITY TO PROVIDE 240V SINGLE PHASE SERVICE TO THE POLE. PROVIDE DOUBLE FUSE CONNECTOR KITS WITH FUSES IN THE BASE OF EACH POLE. THE FUSE CONNECTOR KITS SHALL BE SEC NO. 1791-DF OR EQUAL. THE FUSES SHALL BE BUSS KTK-5 FAST ACTING DUAL FERRULE TYPE OR APPROVED EQUAL.

8. ORIENT ALL MAST ARMS PERPENDICULAR TO ROADWAY. ADJUST ORIENTATION FROM WHAT IS SHOWN AS NECESSARY.

10 5 0 10 20 30
SCALE IN FEET

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STATE OF ALASKA — 49TH — Mark G. Morris — Mar 2, 2011 — No. EE 8613 — REGISTERED PROFESSIONAL ENGINEER

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

ELEC PLAN - PIONEER AVENUE CORDOVA STREET TO STA "P" 12+60

E-1

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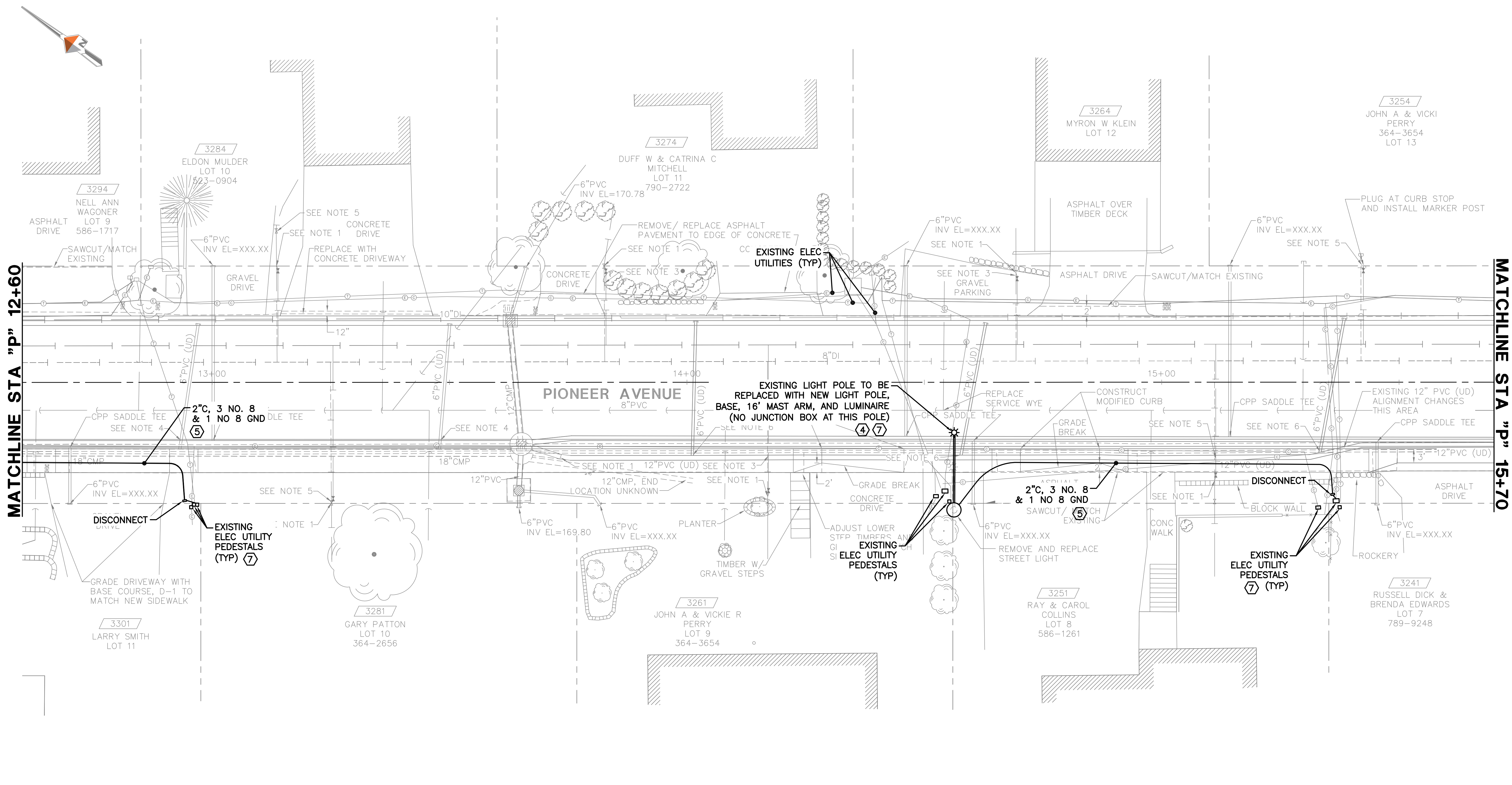

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE RECONSTRUCTION, PHASE I CONTRACT NO. E11-204

ELEC PLAN - PIONEER AVENUE STA "P" 12+60 TO STA "P" 15+70

E-2

SHEET NO. 21 of 25

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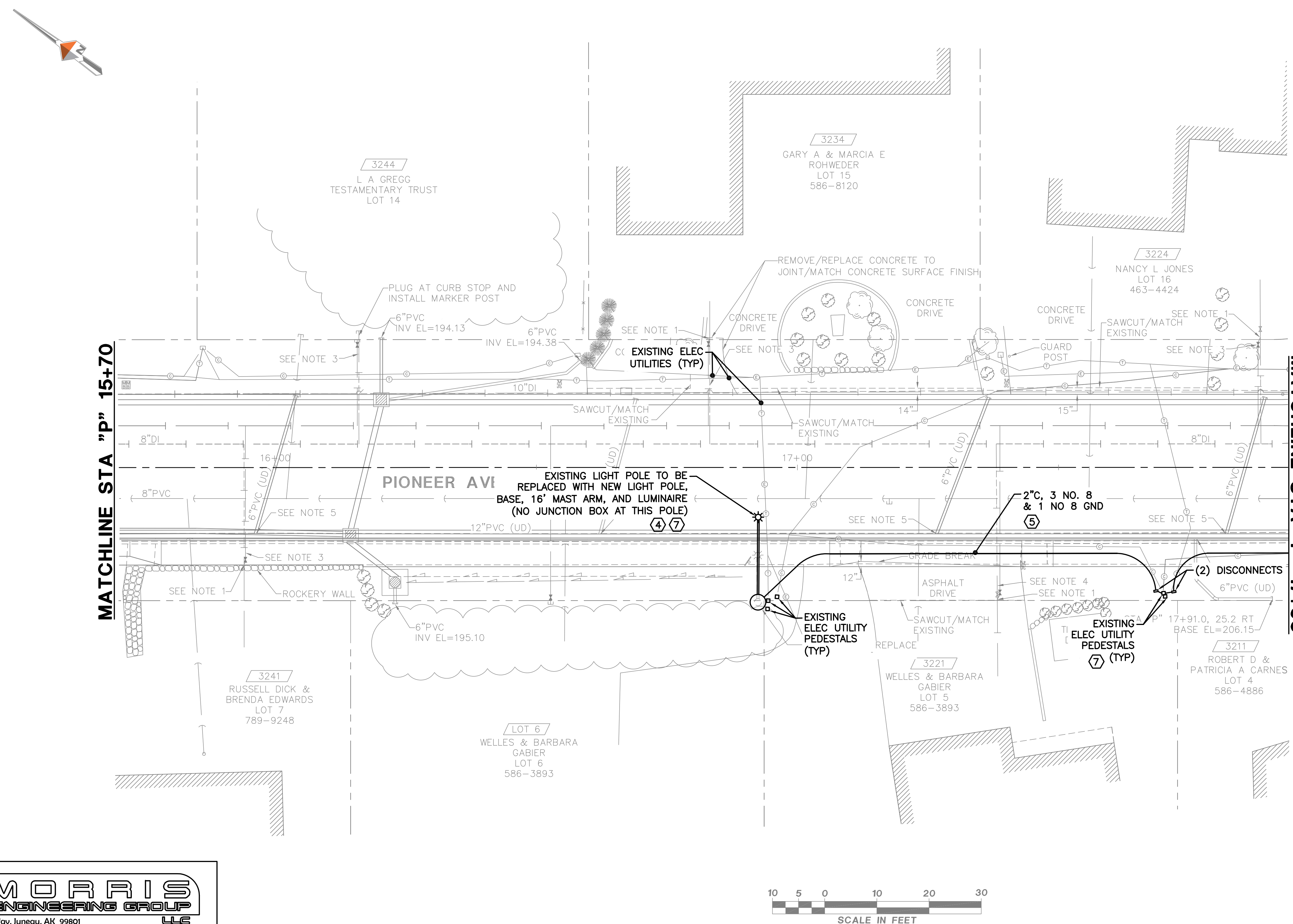

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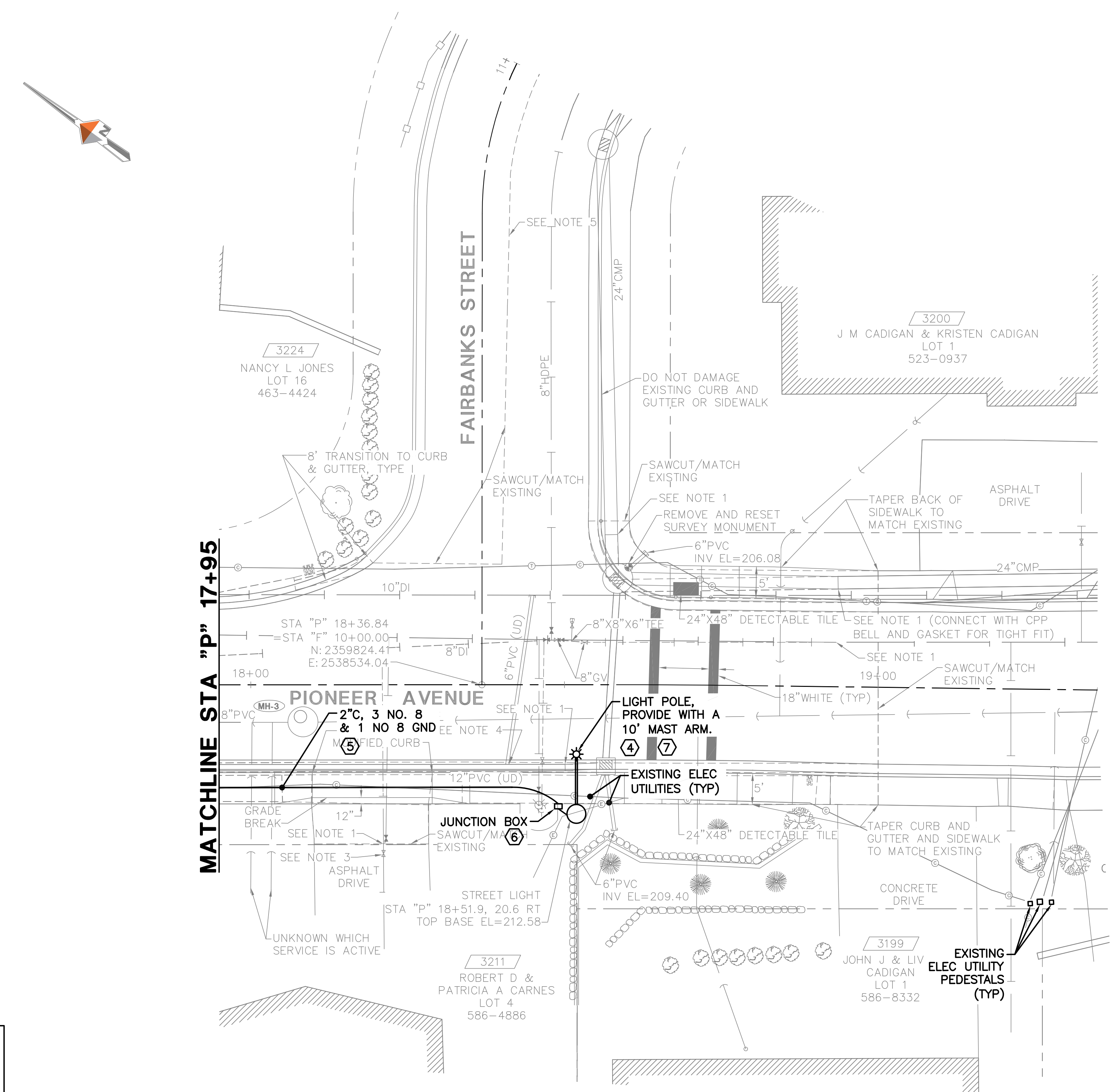
CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE
RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

ELEC PLAN - PIONEER AVENUE
STA "P" 15+70 TO STA "P" 17+95

E-3
SHEET NO.
22 of 25



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SCALE IN FEET

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JOB No. J70388	DRAWN BY: D. PETZ	DESIGNED BY: M. MORRIS	CHECKED BY: M. MORRIS	DATE: MARCH 2011

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

PIONEER AVENUE
RECONSTRUCTION, PHASE I
CONTRACT NO. E11-204

ELEC PLAN - PIONEER AVENUE
STA "P" 17+95 TO END

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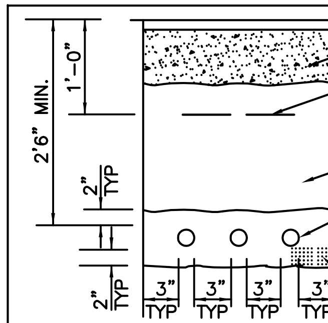
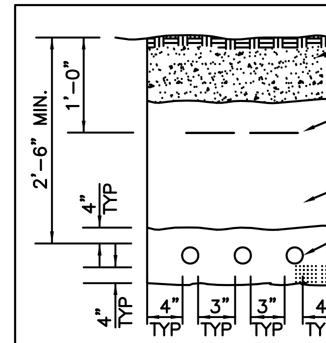


TRENCH DETAIL - PAVED AREAS

NO SCALE

NOTES:

1. ALL DIMENSIONS ARE MINIMUM.
2. SEE CIVIL DRAWINGS FOR TYPICAL SECTIONS UNDER PAVED AREAS. PROVIDE BACKFILL (MATERIAL, COMPACTION, ETC.) PER THE CIVIL DRAWINGS.
3. THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN UTILITY LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
4. MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, ETC.
5. CUT & REPLACE EXISTING ASPHALT, CONCRETE, CONCRETE CURB, GUTTER, SIDEWALK, ETC AS NECESSARY.
6. SAWCUT EXISTING ASPHALT AS REQUIRED TO INSTALL CONDUIT AND OTHER ELECTRICAL ITEMS. SAWCUT ASPHALT BACK 18" ON EACH SIDE OF EDGE OF TRENCH OR EXCAVATION AREA (ALL SIDES). THERE SHALL BE 18" OF UNDISTURBED SOIL BETWEEN EDGE OF SAWCUT AND EXCAVATION LIMITS. ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL TO 95%. COMPACT D-1 TO 100% WHERE COVERED WITH PAVEMENT. RE-PAVE SAWCUT AREAS PER PAVING SPECIFICATIONS.
7. POWER UTILITY CONDUITS SHALL BE BURIED AT A MINIMUM OF 3'-6". BURY CONDUITS DEEPER WHERE REQUIRED TO AVOID OTHER PIPES AND STRUCTURES.
8. MODIFY CONDUIT BURIAL DEPTH WHERE SHOWN ON DRAWINGS AND AS REQUIRED TO AVOID ALL OBSTACLES.
9. THIS DETAIL APPLIES TO DRAIN CONDUITS AS WELL AS POWER & SIGNAL CONDUITS.

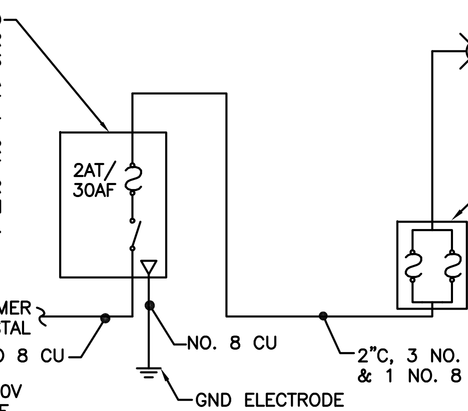


TRENCH DETAIL - NON-PAVED AREAS

NO SCALE

NOTES:

1. ALL DIMENSIONS ARE MINIMUM.
2. THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN UTILITY LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
3. MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, ETC.
4. CUT & REPLACE EXISTING ASPHALT, CONCRETE, CONCRETE CURB, GUTTER, SIDEWALK, ETC AS NECESSARY.
5. ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL TO 95%.
6. POWER UTILITY CONDUITS SHALL BE BURIED AT A MINIMUM OF 3'-6". BURY CONDUITS DEEPER WHERE REQUIRED TO AVOID OTHER PIPES AND STRUCTURES.
7. MODIFY CONDUIT BURIAL DEPTH WHERE SHOWN ON DRAWINGS AND AS REQUIRED TO AVOID ALL OBSTACLES.
8. THIS DETAIL APPLIES TO DRAIN CONDUITS AS WELL AS POWER & SIGNAL CONDUITS.



NOTES:

1. POWER LUMINAIRE W/1ø, 240V POWER. COORDINATE VOLTAGE WITH AEL&P.
2. PROVIDE CLASS RK1 FUSES, BUSS LOW PEAK OR EQUAL.

LIGHT POLE SINGLE LINE DIAGRAM - TYPICAL

NO SCALE

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STATE OF ALASKA 49TH Mark G. Morris Mar 2, 2011 No. EE 8613 REGISTERED PROFESSIONAL ENGINEER

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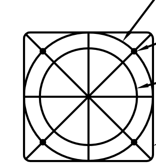
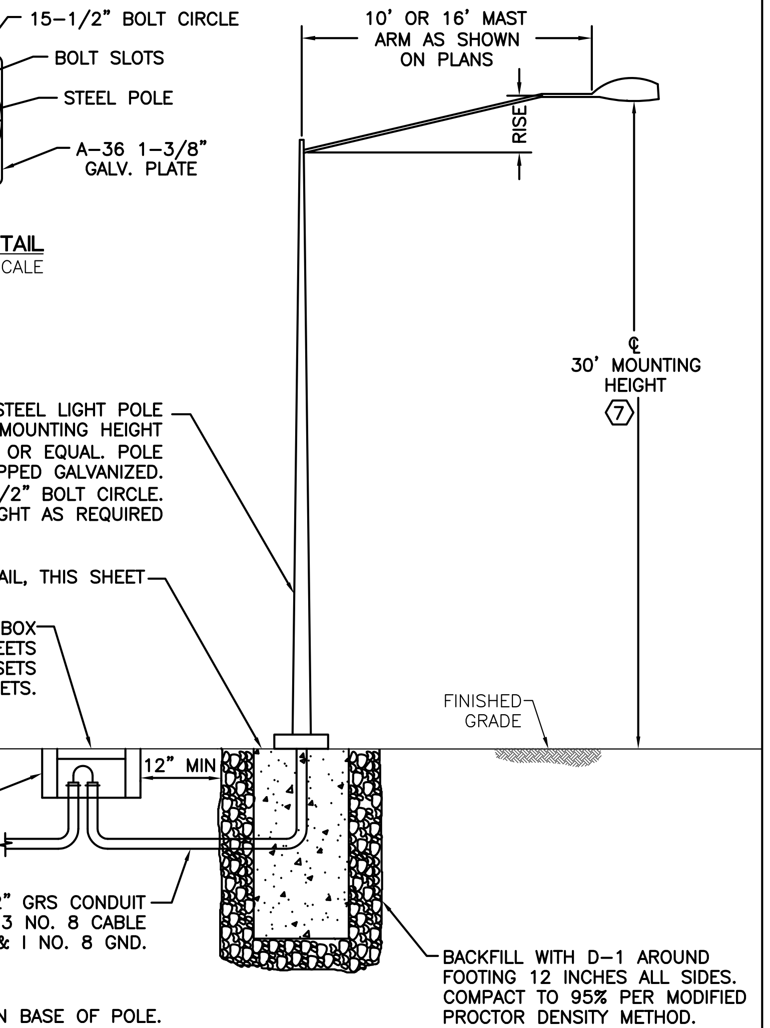
TRENCHING DETAILS AND SINGLE LINE DIAGRAM



BOLT CIRCLE DETAIL
NO SCALE

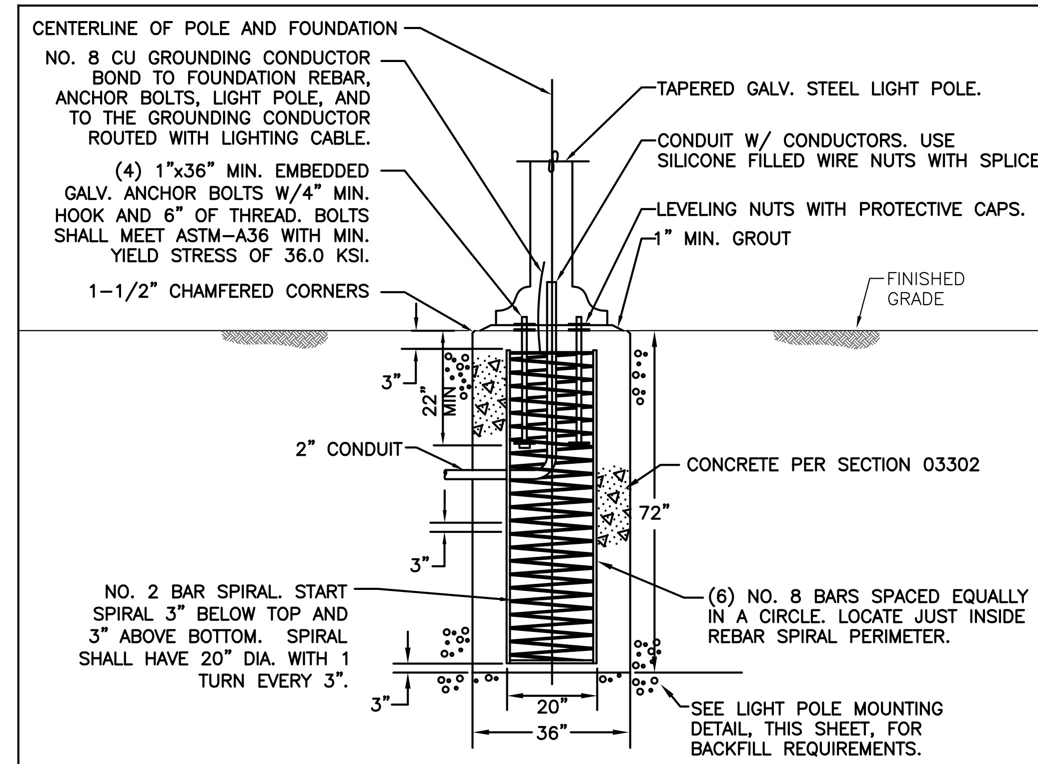


NOTES:

1. ALL SPLICES SHALL BE IN BASE OF POLE.
2. PROVIDE GROUNDING BUSHINGS ON CONDUIT.
3. PROVIDE DOUBLE FUSED CONNECTOR KITS IN BASE OF POLE. SEC NO. 1791–DF OR EQUAL.
4. LOCATE THE CENTER OF THE LIGHT POLE WHERE SHOWN ON PLAN SHEETS AND PER CIVIL DRAWINGS.
5. SIZE POLE WITH LUMINAIRE FOR 90 MPH SUSTAINED WINDS WITH GUSTS TO 110 MPH, EXPOSURE B (IBC 2003)
6. PROVIDE A PE CELL AT TOP OF EACH POLE.

MAST ARM RISE	
LENGTH (NOM.)	RISE (MAX)
10'	2'–6"
16'	4'

LIGHT POLE MOUNTING DETAIL
NO SCALE



LIGHT POLE BASE DETAIL
NO SCALE

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LIGHT POLE DETAILS

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